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FINANCE AND SOCIETY: ON THE FOUNDATIONS OF CORPORATE SOCIAL RESPONSIBILITY

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Understanding Society

Finance and Society:

On the Foundations of Corporate Social Responsibility

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ABSTRACT

We investigate the fundamental determinants and value implications of corporate social responsibility (CSR) around the world. We contrast three broad views on CSR: (1) it is a response to government failures; (2) it reflects individual and societal preferences; (3) it is an equilibrium result of a country's legal origin that shapes the corporations' tradeoff between shareholder and stakeholder values. Using public and proprietary country-level sustainability and firm-level CSR data, we find that: (a) Legal origins are more fundamental sources of CSR than political, social, and firm-level financial forces; (b) The English common law, widely-recognized as being most shareholder-oriented and economically efficient, fosters CSR and sustainability the least, while companies under the civil law origin assume most social responsibilities; (c) Globally, CSR contributes to shareholder value maximization.

Keywords: Corporate social responsibility, sustainability, legal origins, stakeholder orientation, shareholder value.

JEL Code: G30, K22 , M14, O10, O57

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Finance and Society:

On the Foundations of Corporate Social Responsibility

"Business cannot succeed in a society that fails. Likewise, where and when business is stifled, societies fail to thrive."
—Björn Stigson, World Business Council for Sustainable Development

"Driving shareholder wealth at the expense of everything else will not create a company that's built to last."
—Paul Polman, CEO of Unilever, Harvard Business Review (2012)

Robert Shiller opens *Finance and the Good Society* by highlighting the potential tensions between financial development and the achievement of a "good society" characterized by a high level of social welfare. While many argue that financial development, which depends primarily on the protection of shareholder rights (La Porta, Lopez-de-Silanes, Shleifer, and Vishny [hereafter LLSV] 1997, 1998), does contribute to economic growth (King and Levine, 1993; Levine, 1997; Rajan and Zingales, 1998), its effects on societal sustainability—arguably more important than economic growth per se—is still unclear. It is widely believed that societal sustainability crucially hinges on the socially responsible operational and investment behavior of modern corporations (Porter, 1991; United Nations Global Compact, 2013). Accordingly, the importance of corporate social responsibility (CSR) and stakeholder rights has been recognized by researchers, policymakers, and practitioners. What fundamental forces steer companies to behave as good citizens in society rather than as pure profit maximizers? Is protecting stakeholder rights in conflict with protecting shareholder rights? What are their implications to societal sustainability? These are the key questions of this study.

Adequately addressing these questions has been difficult in the past, largely because cross-country firm-level CSR data did not exist until recently. This paper makes use of these new data to empirically address the issue of the shareholder-stakeholder tradeoff, as well as its fundamental determinants and corporate consequences, on a global scale. In a classical economics perspective, CSR can be broadly considered as addressing the interests and needs of various stakeholders, and measures both a firm's

engagement (voluntarily initiated) in and its *compliance* (legally mandated) to environmental, social, and governance (ESG) issues. This concept addresses concerns for the environment (such as climate change, hazardous waste, nuclear energy, ecological balance, etc.), society (social diversity, human rights, consumer protection, consumer consciousness, etc.), and corporate governance (management/board structures and representation, employee relations, executive compensation, anti-corruption measures, etc).[2]

Some scholars, such as Friedman (1970), Jensen (2001), and recently Cheng, Hong and Shue (2013), are skeptical about CSR and consider it a value-diverting activity that does not contribute to aggregate social welfare and sustainability. In this paper, we quantify the relationship between firm-level CSR and country-level sustainability by showing that CSR scores are significantly correlated with country-level sustainability ratings in many dimensions. Some correlations are almost 50%, which is substantial given that the CSR scores and country sustainability ratings are from very different data sources and use different rating metrics. Therefore, although the focus in this paper is on firm-level CSR performance, we also refer to the country-level sustainability interchangeably throughout the rest of the paper, and aim to connect the determinants of CSR to the broader theme of economic development and social welfare.

Most of the extant literature considers CSR as a firm's voluntary initiative, and relates it to the firm's financial and operational performance, which is usually termed as 'doing well by doing good' (e.g., Dowell *et al.*, 2000; Orlitzky, Schmidt, and Rynes, 2003; Renneboog, ter Horst and Zhang, 2008, 2011; Guenster, Bauer, Derwall, and Koedijk, 2011; Cheng, Ioannou, and Serafeim, 2012; Deng, Kang, and Low, 2013). Others study the inverse, 'doing good by doing well', namely whether it is only well-performing firms that can afford to adhere to ESG criteria (e.g., Hong, Kubik, and Scheinkman, 2012). In addition, these studies usually take only one perspective of CSR, such as employee satisfaction

[2] Similarly, The European Federation of Financial Analysts Societies (EFFAS) interprets ESG as the need to focus on: (1) energy efficiency, (2) greenhouse gas emissions, (3) staff turnover, (4) training and qualification, (5) maturity of workforce, (6) absenteeism rate, (7) litigation risks, (8) corruption, and (9) revenues from new products.

(Edmans, 2011, 2012; Edmans, Li, and Zhang, 2014), environmental protection (e.g., Dowell, Hart, and Yeung, 2000; Konar and Cohen, 2001), corporate philanthropy (e.g., Seifert, Morris, and Bartkus, 2004; Masulis and Reza, 2014), or consumer satisfaction (e.g., Luo and Bhattacharya, 2006; Servaes and Tamayo, 2013).The theoretical predictions and empirical evidence on the causal relationship between "doing good" and "doing well" are rather mixed (Margolis, Elfenbein and Walsh, 2007), which implies that to comprehend this relationship (or the shareholder-stakeholder tradeoff) one needs to dig deeper to uncover the roots and foundations of CSR. In addition, if, apart from voluntary adoption, CSR is partly legally mandated, a single country study is not appropriate and one can only examine the fundamental determinants of CSR within a country-level institutional framework. Ioannou and Serafeim (2012) empirically examine the association between "national institutions" and the scores on a CSR index, although most of what they call "institutions" such as a leftist political ideology[3] are not true institutions with persistent and durable features in the spirit of North (1981), but more like the consequences of institutions, which implies that those proxies for institutions may still be endogenously determined. Nevertheless, as revealed both by their data and ours, there are huge cross-country variations in CSR ratings and actual stakeholder practices, the magnitudes of which dominate that of cross-sectional and time-series differences at the firm-level.

In this paper, we try to go one step further and explain the cross-country variations of CSR by focusing on its foundations from three broad economic perspectives. The "division" view holds that there is a division of responsibility between the government (the public sector) and the market (the private sector) (Friedman, 1970; Besley and Ghatak, 2001; Benabou & Tirole, 2010). Under this public-private dichotomy, the market's responsibility is to harness corporations' pursuit of self-interest for the pursuit of efficiency, while the government's responsibility is to correct market failures whenever externalities stand in the way of efficiency, and to redistribute income and wealth. CSR as a private

[3] These variables include the measurement of regulations promoting competition, the level of corruption, leftist political ideologies, the power of labor unions, the availability of human capital, the presence of market-based financial systems, the existence of a CSR stock market index, etc. In addition, the authors did not include legal origins, which we find in our paper are the fundamental determinants that can also simultaneously influence political and other outcomes.

provision of public goods emerges as an alternative response to market and distributive failures by the government. This view focuses on the supply side of CSR, as it concerns who should supply CSR: the government or private companies.

The "preference" view holds that CSR reflects aggregate individual and society's preferences for corporations to take social responsibility (Benabou and Tirole, 2003, 2006). This is essentially a demand side argument that attributes CSR to social demands (Di Guili and Kostovetsky, 2014). In addition, social preferences are not autonomously formed, but are usually shaped and aggregated by political institutions through voting and elections (e.g., Rajan and Zingales, 2003; Pagano and Volpin, 2005; Perotti and von Thadden, 2006; Roe, 2003, 2006). Political institutions determine who possesses the political power to shape laws and regulations that benefit their political constituencies —their stakeholders (Perotti and von Thadden, 2006). Therefore, the degree to which different stakeholders are involved in political participation reflects to what extent CSR reflects their preferences.

The third view—which is more novel and central to this paper—is that legal frameworks can constitute fertile ground for economic outcomes, such as CSR, and are shaped by a country's legal origin (La Porta *et al*., 2008). This "legal origin" view hinges on two conflicting theories of the firm (Williamson, 1981). The first views the firm as a nexus of internal relationships between owners and the management (the principal-agent relation), and suggests that the purpose of corporations is to maximize profits and shareholder value. The second theory focuses on the external relations between the firm and its stakeholders, and views the firm as a nexus of (sometimes also intangible and implicit) contracts between interested parties—in addition to shareholders, these comprise customers, suppliers, owners, managers, employees, and communities ("stakeholders")[4]—who realize economic gains through their participation in these contractual relationships. Corporations constantly trade off these two types of contractual relationships, that is, they are faced with the tradeoff between a shareholder and (other)

[4] The stakeholder perspective dates back to Edward Freeman's (1984) influential book *Strategic Management: A Stakeholder Approach*. The book describes and recommends the methods by which management can give due regard to the interests of the stakeholder groups. Similar definitions and arguments can be found in Donaldson and Preston (1995), Mitchell, Agle, and Wood (1997), Tirole (2001), Friedman and Miles (2002) and Phillips (2003).

stakeholders' focus. Under the legal origin view, such contractual relationships are shaped by laws rooted in a country's legal origin, which fertilizes various contract-based economic outcomes including the above corporate shareholder-stakeholder tradeoff. The "legal origin" view takes into account both demand and supply side arguments, and hence is more likely to predict an equilibrium result on the determinants of CSR.

By empirically testing these three theoretical viewpoints, we find strong evidence supporting the legal origin view, but not the division nor the preference views on CSR. We also do not support the traditional "doing good by doing well" hypothesis. Institutional mechanisms that exclusively steer shareholder protection and financial development often fail to maximize stakeholder wealth and societal sustainability: among the different legal origins, the English common law fosters CSR the least, whereas the Scandinavian legal origin fosters it the most. In addition, firms from German legal origin countries outperform their French counterparts in terms of ecological and environmental policy, but the French legal origin firms outperform German legal origin companies in social issues and labor relations. This result survives the inclusion of an aggressive set of country- and firm-level control variables and several quasi-natural experiments. We also find that political institutions, such as democratic participation, that are believed to be key determinants of access to finance are not preconditions for CSR and sustainability, and sometimes even hinder CSR implementation. Finally, we find that protecting shareholder rights is not necessarily at odds with protecting stakeholder rights, or in other words, finance and 'good society' are not necessarily at odds because CSR can also contribute to the maximization of shareholder value (as proxied by e.g. Tobin's Q).

Our paper contributes in the following ways. First, while most cross-country studies on the role of fundamental institutions focus on country-level differences and use macro-level data that usually suffer from small sample inference and sensitivity to outliers, our unit of analysis is not only the country but also the firm for which we have extensive proprietary and public data on their performance on ESG issues, which also enable us to differentiate between CSR *engagement* and *compliance*. The fact that we

combine a macro- and micro-level analysis enables us to better understand the mechanisms of how fundamental institutions determine corporate behavior. Second, examining the potential tensions between shareholders and stakeholders at the micro-level, as well as between financial development and societal sustainability at the macro-level, may be liable to endogeneity issues. Our approaches circumvent these problems as we investigate such tension by focusing on their common fundamental antecedents—the legal origins, political institutions, and social preferences—that are well established in economic theories, and we apply several global-scale quasi-experiments to identify causality. All results point to the causation from legal origin to firm CSR, and from CSR to firm value, and therefore offer a clearer picture of the determinants and consequences of CSR. Third, our study has significant policy and welfare implications: if institutional origins are found to be of first-order importance, then policymakers could imitate the tools associated with the winning origin. Hence, our empirical findings can offer a guide for institutional reform aiming at stimulating economic and societal sustainability. Many large corporations and countries worldwide today find it hard to achieve good citizenship and sustainable development, in part because of institutional heritage.

The rest of the paper is organized as follows. Section I reviews three broad theories of CSR and lays out their respective empirical predictions. Section II describes our data and empirical strategies. Section III exhibits the empirical results, while Section IV presents several robustness checks. Section V comprises several quasi-experimental tests to further establish causality. Section VI explores the value implications of CSR. Section VII concludes and formulates some policy implications.

I. Theories of Corporate Social Responsibility

We begin our analysis by considering three broad economic theories of CSR, motivated by Benabou and Tirole (2010), Kitzmueller and Shimshack (2012), and de Bettignies and Robinson (2013). In their frameworks, CSR as a form of private provision of public goods is determined by both supply-side and demand-side factors. The supply-side factors concern a division of responsibilities between the state

(government) and the market (corporations), while the demand-side factors concern the society's preferences for CSR and how such preferences can be aggregated by political institutions. We then propose a legal origin view that combines both demand and supply factors, and also provides grounds for understanding the relationship between shareholder value and stakeholder value.

The Division View

The division view of CSR addresses the question as to why corporations empower themselves to care about society and provide public goods and hence be a substitute for democratically elected governments in this respect. The classical economics framework embraces a state-market dichotomy: the responsibilities of governments and of the private sector are largely divided, with corporations being profit-driven and shareholder-oriented, and governments correcting externalities and distributive failures, usually through regulations (Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2002; de Bettignies and Robinson, 2013). CSR emerges as a substitute for governments that bend to wealthy constituents' opposition to redistributive policies (Benabou and Tirole, 2010). Following this line, de Bettignies & Robinson (2013) argue more specifically that CSR arises as a response to inefficient regulation. This is essentially a supply-side argument, which predicts that CSR is more active in countries where governments fail to supply a sufficient level of public goods through the governments' regulatory policies.

The Preference View

The preference view, to the contrary, focuses on the demand-side and argues that it is stakeholders themselves who demand that corporations be more socially responsible. This preference view has two dimensions. The first one is that CSR reflects individuals' or society's direct preferences for social goods, other than monetary incentives such as shareholder returns (Benabou and Tirole, 2003, 2006; Besley and Ghatak, 2005). Benabou and Tirole (2006) term such preferences 'intrinsic motivations'. In some societies, the culture and norms are such that citizens prefer corporations to be more socially

responsible, sometimes through labor movements and political contests (Acemoglu, Robinson, and Verdier, 2014). Therefore, one would expect CSR to be stronger in countries with such standards and norms that put more emphasis on caring about society.

The second dimension is that citizenry preferences are usually reflected through voters putting pressure on politicians to deliver certain economic policies (Acemoglu and Robinson, 2012). Preferences can thus be shaped and aggregated by political institutions. Political institutions refer to a set of rules such as democracy, electoral rules, legislative procedures, constraints to the political executive, etc. (North, 1981; LLSV, 1999; Glaeser *et al*., 2004; Roe, 2006; Matten and Moon, 2008). The principal mode of political decision making is elections, and parties that win them shape laws that benefit their political constituencies—their stakeholders (Botero *et al*., 2004). Hence, political decisions are influenced by voters in elections who represent preferences and economic interests of different stakeholders (Kitzmueller and Shimshack, 2012). Therefore, political institutions such as the degree of democratic participation determine which and to what extent stakeholders can influence decision-making through political participation and voting for their representatives to implement the policies that protect their interests. For example, labor protection is usually stronger in countries with more democratic participation, unionization, and proportional electoral systems (e.g., Roe, 2003; Pagano and Volpin, 2005; Perotti and von Thadden, 2006; Perotti and Schwienbacher, 2009). This essentially implies that more democratic political institutions can more broadly aggregate various stakeholders' preferences by making stakeholders' voices be heard, and are thus related to a higher level of CSR. In the words of Acemoglu and Robinson (2012), such democratic participation is considered as part of "inclusive institutions" which epitomize "the good society". Of course, the premise of this prediction is that democratic elections provide the legitimacy to define what is "right" for society (Benabou and Tirole, 2010).

The Legal Origin View

The fundamental roles of legal origins on economic outcomes are advocated by La Porta et al. (2008), and have been adopted by much of the law, finance, and economics literature. The legal origin

theory argues that the largely exogenous legal origins—common versus civil law, and the legal subfamilies within the civil law tradition such as German, French, and Scandinavian legal systems—utilize different strategies for social control of business, contract enforcement, property rights protection, and dealing with market failure. These differences form the basis of *contracting* that is believed to be the micro-foundation of financial and economic prosperity, and the English common law tradition is widely believed to be superior to other civil law traditions in this regard.[5] Among the myriad of contractual relationships, the internal contract between owners and the management, and the external one between the firm and its various stakeholders are of foremost importance as they are related to two fundamental yet conflicting "theories of the firm" (Williamson, 1981). Therefore, legal origins can provide a foundation for the corporate tradeoff between shareholder orientation (internal contracting) and stakeholder orientation (external contracting).

However, there are fierce debates regarding which type of contracting (or orientation) is more efficient at providing social goods. The premise of internal contracting rests on the principal-agent paradigm, under which corporate law aims to address the agency conflicts between managers and shareholders, and between controlling and minority shareholders. The common law tradition—under the traditional "law and finance" view—is believed to better address agency conflicts, which leads to the development of deeper and broader markets that reduce the costs of external finance to firms and facilitate efficient capital allocation, and hence leads to a higher level of economic prosperity (Rajan and Zingales, 1998). Therefore, maximizing shareholder value is tantamount to maximizing social value, which will in turn benefit other stakeholders, and thus shareholder value maximization is central to the principle of capitalism (Williamson, 1985).

In contrast, the premise of external contracting—or stakeholder-orientation—lies in the paradigm that the company is managed for the benefits and needs of all stakeholders, not merely its shareholders

[5] However, the superiority of the common law has been questioned in some other studies. For example, Roe (2006) argues that the outperformance of common law countries in financial development is not due to legal origin, but due to the postwar legislatures and political ideologies. Spamann (2010) reconstructed the LLSV's legal data, and concludes that the superiority of the common law is not valid.

(Freeman, 1984; Henderson and Ramanna, 2013). Under this paradigm, stakeholder welfare would not be achieved through the "trickling-down" of enlightened shareholder value and capital market development, but has to be directly protected by stakeholder-oriented laws (Freeman, 1984). Sometimes it even hinges on laws that are "laxer" regarding shareholder protection, because CSR as provision of public goods goes beyond the ownership and property rights that are essential in the "law and finance" view. In this regard, the civil law traditions are believed to be more stakeholder-orientated in defining company law (Matten and Moon, 2008). For example, in Germany, corporations are legally required to pursue the interests of parties other than only shareholders through the system of *co-determination* in which employees and shareholders have an equal number of seats on the supervisory board (Allen, Carletti, and Marquez, 2009). The harmonization laws of the European Community include provisions permitting corporations to take into account the interests of creditors, customers, potential investors, and employees. The corporate laws in Japan presume that Japanese corporations exist within a tightly connected and interrelated set of stakeholders, including suppliers, customers, lending institutions, and friendly corporations (Donaldson and Preston, 1995).

In the next section, we test these three broad views using several newly assembled firm-level CSR samples covering almost 70 countries.

II. Data and Empirical Strategy

A. CSR Data and Descriptive Statistics

In recent years, a variety of ESG indices measuring firm-level CSR performance have been constructed by means of different rating methodologies (e.g. some based on a box-ticking approach—compliance, or on interpretative analysis—engagement) and hinge on various datasets, some of which are proprietary. We have extensively discussed the reliability of these ratings with practitioners, policymakers, and data providers. One could raise the concern that the "G" component of ESG measurement is overlapping with the traditional corporate governance issues which are materially

different from the other stakeholder issues, as improving corporate governance does not necessarily require monetary investments while improving the welfare of other stakeholders does (Krueger, 2013). Therefore, we have deliberately selected databases that minimize the weight on corporate governance regulation, while putting more emphasis on environmental and social issues.

Our main data on ESG performance are from MSCI's Intangible Value Assessment (IVA) database. The IVA indices measure a corporation's environmental and social risks and opportunities, which refer to issues where companies generate large environmental and social externalities and may be forced to internalize (future) unanticipated costs associated with those externalities. The rating then takes into account the extent to which a company has developed robust CSR strategies and demonstrated a strong track record in managing these specific risks and opportunities. Such rating methods capture both the legally mandated aspects (unanticipated costs associated with regulatory penalties and lawsuits) and voluntary aspects (risk management strategies and strategies to capture potential opportunities) of CSR. An important note is that companies are rated and ranked in comparison to their *industry peers* from both domestic and international markets, and therefore the rating does not depend on the local CSR situations and rules. The IVA Rating is compiled using company profiles, ratings, scores, and industry reports, and is available from 1999 to 2011.[6] Its coverage comprises the top 1,500 companies of the MSCI World Index (expanding to the full MSCI World Index over the course of the sample period); the top 25 companies of the MSCI Emerging Markets Index; the top 275 companies by market cap of the FTSE 100 and the FTSE 250 (excluding investment trusts); and the ASX 200. For this large sample with global coverage, MSCI constructs a series of 29 ESG scores[7], among which, *Labor Relations*, *Industry*

[6] The information on which the IVA ratings are based is extracted from the following sources: (a) Corporate documents: annual reports, environmental and social reports, securities filings, websites, and Carbon Disclosure Project responses; (b) Government data: central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), RCRA Hazardous Waste Data Management System, etc. In particular for European companies, the information is expanded by means of many other information sources; (c) Trade and academic journals included in Factiva and Nexis; and (d) professional organizations and experts: reports from and interviews with trade groups, industry experts, and non-governmental organizations familiar with the companies' operations.

[7] A key ESG issue is defined as an environmental and/or social externality that has the potential to become internalized by the industry or the company through one or more of the following triggers: (a) Pending or proposed regulation; (b) A potential supply constraint;(c) A notable shift in demand; (d) A major strategic response by an

Specific Carbon Risk, and *Environmental Opportunity* receive the highest weights in the global rating, and the weight on traditional corporate governance regulation is below 2%. The detailed composition of the IVA rating is shown in Table 1. Furthermore, we complement the IVA ratings from MSCI with the *RiskMetrics EcoValue21 Rating* and the *RiskMetrics Social Rating* from RiskMetrics and so capture the environmental and social aspects of CSR, respectively.

[Insert Table 1 about here]

Our main sample covers 91,373 firm-time observations from 59 countries. By means of the Standard Industrial Classification (SIC) and the Kompass sector classification, we classify our sample firms into 17 aggregated industries We also employ other CSR indices provided by various ESG rating agencies with a global scope in order to validate our results. These indices include MSCI's Impact Monitor data, Vigeo's corporate ESG ratings, and Thomson Reuters' Asset4 ratings of which the country coverage and number of observations are shown in the Appendix. In contrast to the MSCI IVA data that focus on engagement (developing strategies to manage its risks and opportunities), the Vigeo ESG data is more CSR compliance-oriented as it applies a check-the-box approach to rate how a firm and the country in which it operates comply with the conventions, guidelines, and declarations by international organizations such as UN, ILO, and OECD. We also obtain a cross-sectional dataset of country-level sustainability ratings from Vigeo, which rates each country based on the laws and regulations that fulfill the country's (1) environmental responsibility, (2) social responsibility and solidarity, and (3) institutional responsibility, which is a country's legal and regulatory framework in relation to sustainability. These three country-level domains echo the firm-level "E", "S" and "G" criteria.[8]

established competitor; (e) Growing public awareness or concern. Once up to five key issues have been selected, analysts work with sector team leaders to make any necessary adjustments to the weights in the model. Each key issue typically comprises 10-30% of the total IVA rating. The weights take into account the impact of companies, their supply chains, and their products and the financial implications of these impacts. For each key issue, a wide range of data are collected to address the question: "To what extent is risk management commensurate with risk exposure?"

[8] The sovereign ratings are based on 120 ESG risk and performance indicators in the aforementioned three domains. Countries are graded on a scale of 100 on their commitment and performance in these indicators such as ratification of the Kyoto convention, the Vienna convention, the Stockholm convention, CO2 emissions per head, Gini index, etc.

B. Methodology

As the IVA ratings measuring a company's ESG performance are integers ranging from 0 to 6 and are not normally distributed, we use the nonparametric Wilconxon-Mann-Whitney test in a univariate analysis which compares the median ESG values across different legal origins, and between capitalist and socialist countries. We will subsequently apply reduced-form regressions to analyze the impact of legal origin and political institutions on CSR. Given that some of our independent variables are time-invariant (e.g., legal origins) and that we would like to draw inferences on the population, random-effect models are most suitable in this panel setting. Our estimations are made by OLS, random-effects generalized least squares (GLS), and random-effects ordered probit models. The latter are estimated by means of maximum likelihood and consider the discrete, ordinal nature of the ratings and the rating changes in a panel data setting (as in e.g., Alsakka and Gwilym, 2010). The general specification can be expressed as:

$$y_{it}^{*} = \alpha_t + \beta_1' Legal_c + \beta_2' PoliSocio_{ct} + \beta_3' X_{it} + \gamma' Z_{ct} + \delta_{it} \qquad (1)$$

Where *Legal* is a vector of different types of civil law origins, *Political* is a vector of political institutions and social preferences variables which, in our sample, are mostly time-variant, X_{it} is the vector of firm-level financial and governance variables, while Z_{ct} is a vector of country-level control variables. Except for legal origins, all the other variables are time-variant in nature, making firm-time random-effect models most suitable. The subscript *i* refers to the individual firm, *t* to the time, and *c* to the country. y_{it}^{*} is the firm-level ESG rating. In the case of ordered probit models, y_{it}^{*} is an unobserved latent variable linked to the observed ordinal response categories y_{it}:

$$y_{it} = \begin{bmatrix} 0 & if\ y_{it}^{*} \le \mu_1 \\ 1 & if\ \mu_1 < y_{it}^{*} \le \mu_2 \\ 2 & if\ \mu_2 < y_{it}^{*} \le \mu_3 \\ 3 & if\ \mu_3 < y_{it}^{*} \le \mu_4 \\ 4 & if\ \mu_4 < y_{it}^{*} \le \mu_5 \\ 5 & if\ \mu_5 < y_{it}^{*} \le \mu_6 \\ 6 & if\ \mu_6 < y_{it}^{*} \end{bmatrix} \qquad (2)$$

The $\mu's$ represent thresholds to be estimated (along with the β and γ coefficients) using maximum likelihood estimation, subject to the constraint that $\mu_1 < \mu_2 < \mu_3 < \mu_4 < \mu_5 < \mu_6$.

Moreover, we explore a few quasi-natural experiments on some exogenous changes of a firm's legal regime and CSR demand using OLS estimation while controlling for country-, industry-, and year-fixed effects so as to further establish causality. Finally, we apply an IV approach for the effect of CSR on Tobin's Q and estimate two-stage least square (2SLS) and fixed effects models (controlling for firm fixed effects). We cluster the standard errors at the country level. In unreported regressions, we cluster the standard errors also at the firm level which yields similar (and stronger) results.

C. The Variables

In equation (1), the dependent variables are various CSR measures that capture the different dimensions of firms' engagement and compliance to ESG issues: the Overall IVA Rating, the EcoValue Rating (from RiskMetrics) and the Social Rating (from RiskMetrics), all are converted to ordered integer scores ranging from 0 to 6. As explanatory variables, we include:

Legal Origins

The Legal Origin refers to the type of law that applies in the country where the firm is headquartered: English common law, French/German/Scandinavian civil law systems, and Socialist origins (both current and former socialist countries) (LLSV, 1998).

Social Preferences

To capture the direct preferences for CSR by citizens around the world, we utilize data from World Value Survey (WVS) on citizens' confidence, which consists of the fraction of surveyees who answered "A great deal" or "Quite a lot" (relative to "Not very much" and "None at all") to the following question: How much confidence do you have in major companies to take social responsibility. We pick up this item as one of our "preference" variables and term it as Citizenry Preferences because there is ample evidence that confidence is strongly related to trust in society, which is further associated with the preferences of citizens on how society should be organized (e.g., Guiso, Sapienza, and Zingales, 2004, 2008).

To capture the indirect social preferences that are aggregated by political institutions, we define the variable Democratic Participation. As Glaeser *et al.* (2004) argue that only aspects that directly relate to

electoral rules are a good proxy for "institutions", we mainly focus on indices that measure democratic participation and rules that define voting and elections: the Vanhanen Democratic Participation index and the Polity IV Democracy index are often used in political economy.

Political Executive Constraints proxies for the constraints to potential expropriation by the political elites as suggested by Glaeser *et al.* (2004): "[Political executive constraints] is the only measure that is clearly not a consequence of dictatorial choices, and […] can at least loosely be thought of as relating to constraints to government" (p. 282). We use the same index, developed by Polity IV.

Our third political variable is Corruption Control which measures the extent to which politicians are constrained from pursuing their self-interest (through corruption), and to some extent also captures constraints. Apparently, there are more political variables that stand for aggregate social (stakeholder) preferences, but we stick to the above three because they are most closely connected to North's (1980) conception of institutions as "constraints" and thus better reflect aggregate preferences. In the robustness section, we will deal with alternative specifications.

To test the division view, we use a country's Regulatory Quality to proxy for the government's engagement and effectiveness in taking society responsibility and dealing with market externalities. This variable captures the government's ability to formulate and implement sound policies and regulations that permit and promote private sector development.

Corporate Governance and Financial Variables

We also control for corporate governance structures such as the nature and dispersion of ownership and board structures, as they matter for the balance of power between shareholders and other stakeholders.

Dispersed Ownership is directly influenced by legal origins and political institutions (Aslan and Kumar, 2012; Roe, 2003, 2006), but may at the same time affect the (need for) protection of stakeholder rights. The literature highlights both the negative consequences of dispersed ownership due to managerial agency problems, and its positive value implication due to the alleviation of the dominant

shareholder problem (as the dominant shareholder can expropriate the rights of minority shareholders). Ownership dispersion also captures the extent to which conflicts can arise between shareholders and stakeholders regarding CSR expenditures (Barnea and Rubin, 2010). We use the Orbis' Independence Indicator as a proxy for ownership dispersion/concentration.

Ultimate Owner (UO) Types include (i) the state; (ii) wealthy individuals or families; (iii) foundations or research institutes (e.g. universities); (iv) pension funds; (v) venture capital and private equity; (vi) banks, insurance companies and other financial institutions (financial consortia); and (vii) corporations (Claessens, Djankov, and Lang 2000). The inclusion of these ultimate owner type dummies is motivated by the literature that the identity of large shareholders can significantly influence corporate policies, including CSR (Cronqvist and Fahlenbrach, 2009).

The board of directors' tier structure (or Supervisory Board) refers to the adoption of a one-tier board system that combines the management and supervisory directors into one body, or a two-tier system that separates them. Under the two-tier structure, the supervisory board usually consists of employees and outsiders, which fosters codetermination by shareholders and other stakeholders. In about three quarters of the countries, the one-tier board has been legally or voluntarily adopted. Elsewhere, notably in Germany, the Netherlands, Austria and Scandinavia, the two-tier structure prevails. We include a firm-level dummy variable capturing the existence of a supervisory board.

We also include a set of control variables such as firm-level financial constraints to investigate whether firms are "doing good by doing well" (Hong, Kubik, and Scheinkman, 2012). Our variables capture different aspects of financial constraints: (1) short-term investment to cash flow sensitivity (Financial Constraints) (Fazzari, Hubbard, and Petersen, 1988), (2) Interest Coverage, and (3) Financial Slack, measured by the current ratio. We also include financial performance: return on assets (ROA).

Country-level Controls

We control in equation (1) for a country's level of economic development: the (logarithm of the) GDP per capita and a globalization index. GDP per capita captures income and wealth effects, as people

in richer countries are more likely to care about sustainability whereas those in poor countries merely worry about daily economic survival. The globalization index is expected to capture the spillover effect of CSR standards across countries, as corporations in more globalized countries are under higher pressure to comply with international conventions and principles that outline the norms for acceptable corporate social conduct. Detailed definitions and sources of all our variables are summarized in the Appendix.

III. Results

A. Descriptive Results

We first examine the relation between firm-level CSR (the CSR ratings from MSCI IVA) and country-level sustainability (the Vigeo sustainable country ratings). The average correlation coefficient between these two sets of indices is above 25% and statistically significant at the 99% confidence level. The correlations between the aggregated IVA rating and the overall country rating, the environmental responsibility country rating, the institutional responsibility country rating, and the social responsibility and solidarity country rating amount to 29%, 21%, 28% and 26%, respectively. The correlations between the RiskMetrics Ecovalue rating and the aforementioned country ratings are 23%, 24%, 21% and 20%, respectively. The correlations between the RiskMetrics Social rating and those country ratings are 26%, 20%, 25% and 24%. Similarly high correlations are found between the country-level sustainability rating and other firm-level CSR ratings. The correlation between Vigeo's 'human resource concern' and 'country institutional responsibility' is as high as 47 percent. Given that these datasets are from different sources and are constructed by means of different rating metrics, the positive correlations are remarkable. It confirms the aforementioned normative argument that CSR is closely related to societal sustainability, and indicates that the fact that firms address social/environmental/governance issues (even through voluntary engagement rather than pure compliance to regulation) is not mutually exclusive to governmental efforts to achieve a sustainable society.

We compare the mean ESG ratings for the countries belonging to different legal origins in Table 2.

In addition to the overall ESG rating (Overall IVA Rating) and two general ratings on environmental and social policies (EcoValue21 Rating and Social Rating), we also show the various components of the CSR subcategories representing benefits for different types of stakeholders.[9] The comparisons of the means of the CSR indices across legal origins in Table 2 show that the English common law system is inferior to the civil law systems in terms of fostering good corporate ESG performance. Firms from the Scandinavian and German legal origins outperform those from the English common law system, especially in terms of environmental issues, as indicated by the scores in EcoValue21 Rating and the subcategories Environment, Environmental Management Capacity, Environmental Opportunity, Industry Specific Carbon Risk, Environmental strategy, Environmental Management Systems, Environmental Accounting Reporting, Certification (e.g., ISO14000), etc. In social- and labor-related issues, firms from the French legal origins outperform those from the English and German legal origins, as can be derived from the scores of the Social Rating and the subcategories Human Capital, Stakeholder Capital, Employee Motivation and Development, Labor Relations, Health Safety, Customer Stakeholder Partnerships, Human Rights Child and Forced Labor, etc. The English common law system is only superior to civil law systems in the domain of the firm's interactions with local communities and traditional corporate governance concerns. Companies from the Socialist legal origin perform the worst across the board.

[Insert Tables 2 about here]

We further compare the differences across legal origins for various aspects of CSR using a non-parametric test (Wilcoxon-Man-Whitney test). Table 3 shows that the differences in ESG performance (overall and by component) are highly statistically significant across legal families, and that civil law countries consistently outperform common law countries in all ESG subfields. Within the civil law

[9] For example, the CSR benefits for shareholders and creditors can be inferred from *Strategic Governance*, *Strategic Capability & Adaptability*, *Traditional Governance Concerns*, etc. The benefits for employees – the recognition of human capital - are manifested in *Employee Motivation Development, Labor Relations, Health & Safety*, etc. The benefits for customers can be derived from the categories *Customer Stakeholder Partnerships, Intellectual Capital & Product Development, Product Safety*, etc. The environmental issues – categories *Environmental Management* capacity through *(Environmental) Performance* – are crucial to all types of stakeholders.

countries, we find that firms of countries with German legal origin outperform their French counterparts in terms of ecological and environmental policy (EcoValue 21 rating, Industry Specific Carbon Risk, and Environmental Opportunity), but that the French legal origin firms outperform German legal origin companies in social issues and labor relations. Capitalist economies attach more attention to ESG relative to the current and former socialist countries (Russia, China, and some Eastern European countries).

[Insert Table 3 about Here]

B. GLS Estimations

In Table 4 we present the results from both random-effect GLS models and pooled OLS explaining the variation in the different CSR ratings: the Overall IVA Rating, the RiskMetrics EcoValue (environmental) Rating, and the RiskMetrics Social Rating (all are ordinal integer scores ranging from 0 to 6). The English common law origin is our benchmark and is therefore omitted from the models.[10] Models (1)—(3) show the results from regressing the three CSR ratings on legal origin dummies, Citizenry Preference, Regulatory Quality, together with other control variables. In Models (4)—(6), we further expand Models (1)—(3) by including the political institutions variables (Democratic Participation and Executive Constraints) as alternative measures of aggregate social preferences, the types of ultimate owner (UO) (whereby the case in which industrial companies are the ultimate owners is the benchmark), and industry fixed effects.[11] Models (7)—(9) have the same specification as Models (4)—(6), except that they are estimated by means of a pooled OLS.

Several important observations can be made: First, the coefficients on the French, German, and Scandinavian civil law origins from models (1) to (9) are mostly positive and statistically significant,

[10] Given the consistent ESG underperformance of firms in (current or former) socialist countries, which are still under an autocratic or dictatorial regime, we exclude these countries from our sample, and focus on the differences between common law systems and civil law systems (and their subsystems).

[11] In Model (5), we further exclude *Financial Constraints* measured as the sensitivity of short-term investment to cash flow, considering Chen & Chen's (2012) criticism on this measure. We also exclude *Financial Slack* (current ratio) – a measure of liquidity and the ability to meet creditors' demand – which is sensitive to the type of ultimate owner. Given that not all firms have dominant shareholders as the ultimate owner, the number of observations declines (if a company does not have ultimate owner, the observations for the UO variable are treated as missing values).

regardless what estimation methods are used, which implies that firms under civil law systems do better in terms of ESG adoption/performance than those under the English common law system. The economic effects are substantial: without controlling for the type of ultimate owner, firms in civil law countries on average outperform those in common law countries by over one grade (on a scale of 7) in different ESG ratings (Models 1-3). Controlling for the type of ultimate owner, such outperformance is amplified to over 3 grades on the ESG ratings with random-effect GLS estimations (Models 4-6), and to about 1.5 grades on the ESG ratings with pooled OLS estimations (Models 7-9). Similar economic magnitudes are found for French and German legal origins; in the environmental rating, firms from German civil law origin even outperform those from common law origins by 4 grades on average—more than half of the whole scale—when estimated using GLS. This stands in marked contrast with the traditional legal origin theory in the law and finance literature that the common-law countries generally have the strongest, and French civil-law countries the weakest investor protection, financial development, and economic efficiency (LLSV, 1998; La Porta *et al.*, 2008). Our findings echo the legal origin view of CSR, but also reveal something different from the traditional legal origin theory: while common law focuses more on the legal protection of shareholders which is the premise of stronger financial development, it fails to sufficiently bolster stakeholder rights compared to civil laws.

Second, in Models (1)-(3), none of the coefficients on Citizenry Preferences and Regulatory Quality are statistically significant. In Models (4)-(6) when political institutions variables and more controls are included, the coefficients on Citizenry Preferences become positive and significant, while those on Regulatory Quality are largely insignificant. For the "preference" view to hold, we expect and a positive association between citizenry preference, democracy, and CSR. We find that the preference view is not fully supported because, while the Citizenry Preferences are statistically significant, the coefficients on Democratic Participation have the inverse sign (they are all negative and significant), while those on Executive Constraints are insignificant.[12] For the "division" view to hold, we expect a negative

[12] In unreported regressions where we include all ultimate owner dummies and treat "no ultimate owner" as the base case, the main results on legal origins and political institutions remain unchanged.

association between governmental regulatory quality and CSR, but we find that this is not the case. The results of Models (7)-(9) where the same specifications are estimated using pooled OLS (a method that is usually preferred with cross-country time-invariant factors as key explanatory variables), also exhibit little consistent support for the division and preference views because Citizenry Preferences, Democratic Participation and Executive Constraints are all insignificant). Only Regulatory Quality is (marginally) significant and positive.

One may be concerned that the negative coefficients on participation indices in Models (4)-(6) seem counter-intuitive. In unreported regressions, we try several other democracy indices that measure similar aspects of political participation and democratic rule: the Democracy Ranking, the Economist Intelligence Unit's (EIU) Democracy Index (both the overall EIU democracy index in 2006, and the EIU index of electoral rules and political participation over different years), the Free House Political Rights Index, the Unified Democracy Scores, and the Polyarchy Democracy Index 2000. The previous results survive with different democracy indices and the coefficients on the democracy indices often remain negative. This does not mean that we interpret the negative coefficient on democratic participation as unaccountability of the democratic process with regard to ESG issues, but rather as inefficiencies of the democratic participation process in dealing with changes in ESG preferences: due to difficulty in consensus building, democratic participation in political decision making may be a burden for aggregating social preferences to pursue more CSR initiatives, especially for those often beyond laws and regulations. This is also in line with Glaeser *et al.* (2004) in that democratic institutions do not cause growth and create wealth; rather, they are the *consequences* of economic growth and wealth creation. In addition, a country's globalization (Globalization Index) mostly has a positive impact on CSR, but is not consistently correlated with CSR, which echoes the findings by Ioannis and Serafeim (2012) that trade openness is positively but not persistently related to CSR. As the sign of the coefficient on GDP per capita is rather ambiguous, the income level is not a key determinant of CSR.

For the firm-level variables, Table 4 also shows that ownership structure and board structure do not

seem to matter much for CSR, as the coefficients on Dispersed ownership and the Supervisory board dummy are mostly insignificant. For forms with higher ownership concentration, the type of controlling shareholders—the state, individuals or families, financial institutions, pension funds, and private equity—mostly do not significantly affect CSR performance. Exceptions are private equity-controlled firms (UO – VC/PE) that on average underperform in terms of CSR ratings (Models (4)-(9)), and foundations-controlled firms that outperform (Models (4)-(6)). The former may be due to the fact that private equity ownership usually has short-term investment horizon and does not engage in long-term strategic plans such as CSR, and the latter can be easily explained by the social missions of charity foundations. Furthermore, most of the financial performance and constraints variables (not reported in this table to preserve space, but will be shown in later results) are statistically insignificant, indicating that they are not the primary source of CSR. This finding thus fails to support the 'doing good by doing well' hypothesis, in that more profitable and less financially constrained firms are able to assume more social responsibilities (Hong *et al.*, 2012). Overall, we conclude that legal origin is the most significant and persistent predictor of CSR adoption and performance around the globe.

[Insert Table 4 about Here]

One may be concerned about the weighting of countries by the number of their firm-years in the data when using random effect models. We therefore construct a new sample consisting of the ten largest companies in terms of market capitalization in each country (countries with fewer than ten companies are dropped).[13] In unreported regressions, we conduct OLS tests on this equally-weighted sample with the same variables, and the above main results survive.

C. Random-Effect Ordered Probit Estimations

Since we use ordinal dependent variables, we re-estimate the above models by means of random-effects ordered probit models[14]. The first three columns (Models (1)-(3)) in Table 5 report the results

[13] This leaves us with 32 countries and 320 observations if we run simple OLS, or 8,916 observations if we run random effects or pooled OLS.

[14] Given the complex nature of our non-linear estimation models, we cannot add in all the possible explanatory variables as they sometimes may not result in convergent estimations, and need to make some choices. We use *Executive*

when we only include legal origins in the models with Overall IVA Rating, EcoValue Rating and Social Rating as the dependent variables, respectively. Similar to the GLS results of Tables 4, the coefficients on the three civil law origins are mostly positive and statistically significant at the 99% confidence level (with as only exceptions, the French origin in environmental performance and the German origin in social performance). As before, the economic significance of the Scandinavian origin remains the highest across the civil law origins: Scandinavian origin increases the ESG rating by over 2 grades relative to the English origin. Models (4)–(6) of Table 5 show the results of further including political institutions (Corruption Control, Executive Constraints, and Regulatory Quality) as well as other country- and firm-level covariates. Again, our previous results are upheld: legal origin (civil law) dummies are consistently positive and significant, the sign on Corruption Control and Executive Constraints is negative and significant, and that on Regulatory Quality is mostly positive but not consistent. These findings do not support either the division view or the preference view. Adding Citizenry Preference as an additional variable to capture social preferences to Models (7)-(9), does not change the results of the previous models. The coefficient on Citizenry Preference itself is positive for the overall IVA rating (Model 7) and Social rating (Model 9), but negative for the EcoValue rating (Model 8), and these signs are difficult to be reconciled with that of the democratic participation variable (Executive Constraints). This indicates that aggregate social preference is not a consistent predictor for CSR, and we hence do not find support the "preference" view.

[Insert Table 5 about Here]

D. Estimations with Alternative CSR Data

One possible concern could be that our empirical results are driven by the peculiarity of our CSR data. The similarity in the results from the Overall IVA Rating data and from RiskMetrics data

Constraints—suggested by Glaeser *et al.* (2004) and Acemoglu and Johnson (2005)—as our key proxy for democratic participation, as using the Vahanen democratic participation index often results in non-convergence in estimation. We do not include the ultimate owner type in the estimation as these dummy variables account for only a small portion of the sample and including them will lead to non-convergence in the estimation. We also exclude the globalization index from all models, and include *Corruption Control* in Model (4) to replace *Executive Constraints*, for the same reason. In addition, the firm-level *Supervisory Board* dummy is replaced by a country-level *Board Tier Structure* variable (see definition in Appendix) for convergent estimations.

(EcoValue21 Rating and Social Rating) could be due to the fact that they use similar rating methodologies.[15] To address this issue, we conduct our tests on CSR scores from other databases with global coverage: (i) the ESG Impact Monitor,[16] (ii) Vigeo's corporate ESG (panel) data (three representative subindices which measure corporate compliance rather than engagement related to corporate governance, human resources, and consumer & supplier relations),[17] and (iii) Thomson Reuters' Asset4 (panel) data.[18] We use the Vanhanen index and the Polity IV executive constraints index to capture the impact of democratic participation, and we also in- and exclude the variable Corruption Control as a robustness check. Table 6 shows that that our previous results largely survive with different ESG measures from the above alternative CSR databases: firms with civil law origins outperform those with common law origin in terms of CSR. The exception is in Model (3) but the reverse (negative) signs on legal origins are actually not that unexpected because the Vigeo corporate governance dependent variable measures the traditional governance concerns from an agency perspective. The fact that firms with common law origins do better in terms of shareholder protection is indeed consistent with the traditional law and finance view. In terms of compliance to human resources rules, firms under civil law do better than those under common law (Model (4) of Table 6), but in the domain of consumer and supplier concerns, only firms under Scandinavian legal origin outperform (Model (5)). In addition, the sign of the coefficient on the democratic participation indices is still persistently either negative or insignificant.

[Insert Table 6 about here]

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15 RiskMetrics/ISS was acquired by MSCI in 2010, although their original rating methodologies have been maintained.

16 Also developed by MSCI but with emphasis on the 'impact' of companies' ESG performance (especially on the significance of a company's social and environmental impact and its ability to manage that impact). The database captures how well a company adheres to international norms and principles such as the *UN Global Compact* and *ILO Core Conventions* and assesses corporate strategies, disclosure and performance with respect to these norms and principles.

17 ESG performance focuses on six domains: (1) environment, (2) human rights, (3) human resources, (4) business behavior (customers & suppliers), (5) community involvement, and (6) corporate governance.

18 ESG information on 4,300+ global companies based on 250+ key performance indicators and 750+ individual data points covering every aspect of sustainability reporting. The sample includes MSCI World, MSCI Europe, STOXX 600, NASDAQ 100, Russell 1000, S&P 500, FTSE 100, ASX 300 and MSCI Emerging Market. On average, 10 years (from 2002) of history is available for most companies.

IV. Robustness

A. Investor protection and cultures

We also investigate whether the impact of legal origins on CSR occurs through corporate governance rules and cultures. Presumably, legal origins can have a direct impact on CSR through the shareholder-stakeholder tradeoff (embedded in the spirit of law), or an indirect one through rules and regulations related to investor protection and corporate governance. Therefore, we include in our models the widely used anti-director rights index (ADRI).[19] In addition, as cultures could have affected both legal origins and political institutions, and have an impact on CSR performance, we also control for culture by introducing the Hofstede five cultural dimensions at the country level (Hofstede and Hofstede, 2005). These dimensions are: (1) Power Distance, (2) Individualism, (3) Masculinity versus Femininity, (4) Uncertainty Avoidance, and (5) Pragmatism (for definitions see Appendix). We present the tests in Table 7: as investor protection and cultures usually endogenously affect economic outcomes (Stulz and Williamson, 2003; Sapienza, Zingales, and Guiso, 2006; Tabellini, 2010), we exclude the two economic development variables, Ln(GDP per capita) and the Globalization Index. In addition, to address the concern that ESG ratings are given relative to industry benchmarks and thus already take into account of the industry effects, we show results both with and without industry dummies to check robustness of the results. We conclude that the effects of ADRI and the Hofstede cultural variables per se on CSR are not strong or consistent, and that our previous results on legal origins, democratic participation, and political executive constraints, as well as ownership and board structures are maintained when controlling for corporate governance rules and culture.

[Insert Table 7 about here]

B. Country-level Sustainability

[19] Both the original LLSV (1998) ADRI and Spamann's (2010) revised ADRI consist of six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; and (6) percentage of share capital to call an extraordinary shareholder meeting. Replacing ADRI with other widely-used investor protection indices such as the anti-self-dealing index in Djankov et al. (2008) and the one-share one-vote index (LLSV, 1998; Spamann, 2010) yield very similar results.

We relate the Vigeo sustainable country ratings (175 countries worldwide) to the country-level variables used in the above analyses: legal origins, political institutions, economic development variables, and ADRI. Citizenry preference is not included in the regressions (so we only rely on democratic participation as a proxy for aggregate social preferences), because it would reduce our cross-section sample size to 22. Still, in unreported regressions we find that including citizenry preference does not make the results much different. The findings in Table 8 suggest that: (1) Legal origins strongly explain the variation in countries' sustainability measures—the overall CSR score, specific ratings for the environment, social issues and solidarity, and country-level governance ("institutional responsibility"); and their effects are more persistent than the impact of shareholder-orientation (ADRI) and economic development; (2) The effects of political institutions are not significant, neither over long nor short time spans. Thus, our country-level results are largely consistent with the firm-level results.

[Insert Table 8 about Here]

V. Establishing Causality: Quasi-Natural Experiments

One major concern on our above cross-country firm-level analysis is that unobservable country-level alternative factors can drive spurious correlations between legal origins and CSR, and make causal identification difficult. This concern can be largely eliminated if we are able to control for country fixed effects that can take into account all time-invariant country-level factors, which, however, will also omit our key variables: legal origins. In order to further establish causality from legal origin to CSR while controlling for country fixed effects, we exploit several quasi-natural experiments that either changed a company's legal regime or shifted firms to new equilibria. We then estimate models using a differences-in-difference (DiD) approach. In general, a DiD estimation can be specified as:

$$CSR_{ict} = A_c + B_t + C_s + \beta X_{ict} + \gamma I_{lt} + \epsilon_{ict} \qquad (3)$$

where A_c, B_t, and C_s are fixed effects for countries, years, and sectors (industries), respectively. X_{ict} are relevant individual controls and ϵ_{ict} is an error term. I_{lt} is the interaction between legal origin

(civil law) and the year dummy. The estimated impact of legal origin (civil law in year t) is then the OLS estimate $\hat{\gamma}$. Standard errors are clustered across firms and time to account for serial and cross-sectional correlations.

Cross-Listing on Stock Exchanges

Ideally, one would find an exogenous shock to the change of a country's legal origin to study the causal effects of legal origin on firm-level CSR. However, such truly exogenous shock did not occur during our sample periods. Nevertheless, large multinational corporations do frequently cross-list in other countries, such that they may become subject to another legal regime (imposed by the listing rules). We therefore use cross-listing on different stock exchanges in different legal regimes (common law versus civil law) as our first quasi-experimental setting to explore the effects of cross-legal-regime listing on the change of firm-level CSR. To do so, we use the CSR sample with ASSET4 ESG ratings for this quasi-experimental test, because ASSET4 data focus on subsidiary-level ESG ratings, and cross-listing and scandals mainly have an impact at the subsidiary-level. The ESG ratings from ASSET4 are on a scale from 0 to 100.

Table 9 reports the results on listings across different legal regimes, with each column representing one specification. The dependent variables are the overall CSR rating, environmental rating, and social rating from the ASSET4 sample, and the independent variables include the ones we previously controlled for, additional more fine-grained variables, as well as the dummy variable indicating whether the firm had a cross-listing history. Importantly, with this setting we are able to simultaneously control for industry, year, and *country* fixed effects, which largely rule out alternative country-level channels. Panel A reports the results for cross-listing from the common law to the French civil law regime, with dependent variables being CSR ratings in the year of the cross-listing in Models (1)-(3), and CSR ratings one year after the cross-listing in Models (4)-(6). The DiD estimator is the coefficient on the interaction term between the cross-listing dummy and the dummy capturing the year of the cross-listing ("Cross-listing × year"). Consistent with previous results, the coefficients on most interaction terms in Panel A

are highly significant and positive, and the economic magnitudes are again non-trivial: the average CSR scores increased by more than 4 grades upon cross-listing, and still increased by more than 2 grades one year after. These results indicate that upon and after being cross-listed from the common law regime to the French civil law regime, the firm substantially upgraded its CSR performance.

One may be concerned that the above statistical significance is driven by alternative explanations such as the possibility that CSR changes are due to international corporate expansion or that investors (or stakeholders) are sensitive to the information salience of the cross-listing, regardless which legal regime the firm cross-listed into. We address this concern by showing in Panel B the results for cross-listing from the French civil law regime to the common law regime, with as dependent variables the CSR ratings in the year of cross-listing in Models (7)-(9). Interestingly, we find statistical significance for neither the interaction terms nor the main effects of cross-listing. These one-directional results give us confidence that the causality goes indeed from the legal origin to firm CSR.

[Insert Table 9 about Here]

Another three quasi-experiments we conducted are related to unexpected shocks of corporate scandals or natural disasters, which moved firms out of equilibrium and magnified the costs and benefits of different legal regimes. These shocks include the 2008 Chinese milk scandal, the 2004 Asian earthquake and tsunami, and the 2010 Deepwater Horizon oil spill. All these shocks significantly shifted demands for CSR in certain industries, thus offer us ideal settings to investigate which legal regime house companies that shifted most.

Chinese Milk Scandal and Product Responsibility

The 2008 Chinese milk scandal was a food safety incident in China, involving milk and infant formulae, and other food materials and components, adulterated with melamine. By November 2008, China reported an estimated 300,000 victims, with six infants dying from kidney stones and other kidney damage, and an estimated 54,000 babies were hospitalized. Government inspections later revealed that the problem existed in products from 22 companies, including market leaders such as Mengniu. The

World Health Organization referred to the incident as one of the largest food safety events it had had to deal with in recent years. The issue raised severe concerns about food safety, not only in China but all over the world, as many food manufacturing and processing companies import food materials and components from China, or had foreign operations in China. The European Union, European Commission, and the United States Food and Drug Administration all tightened up food safety checks and regulations.

The Chinese milk scandal raised worldwide awareness of companies in food-related industries on their product safety and responsibility. We therefore utilize the "product responsibility" rating offered by ASSET4 and compared companies on their reaction -across legal regimes- in terms of upgrading their own product safety, measured by their product responsibility scores. We exclude Chinese firms from the sample because we want to avoid the (expectedly strong) local impact on our international results. Panel A of Table 10 shows the results of all previously controlled variables, and the DiD estimator is the coefficient on "Civil law × 2009". Again, the coefficient is positive and statistical significant with a non-trivial economic magnitude, indicating that food-related companies in civil law countries upgraded their product responsibility performance by more than 7 grades on average (on a scale of 100) in relation to firms in common law countries.

Indian Ocean Earthquake and Corporate Donations

The 2004 Indian Ocean earthquake and tsunami, was an undersea megathrust earthquake that occurred on Sunday, 26 December 2004, and was one of the deadliest natural disasters in recorded history. The earthquake was caused when the Indian Plate was subducted by the Burma Plate and triggered a series of devastating tsunamis along the coasts of most landmasses bordering the Indian Ocean, killing over 230,000 people in fourteen countries, and inundating many coastal communities. The plight of the affected people and countries prompted a worldwide humanitarian response. In all, the worldwide community donated more than $14 billion in humanitarian aid, while some funds are from national governments, most others are corporate donations.

Corporations constantly donate money in normal times, but the earthquake and tsunami magnified the amount of corporate donations. We therefore compare the overall donations made in 2005—right after the disaster—by corporations in our world sample. Panel B of Table 10 shows the results from this natural experiment with the same control variables as before, and the coefficient on "Civil law × 2005" is the DiD estimator. Again, this coefficient is positive and statistically significant, indicating that on average firms in civil law countries donated more money that those in common law countries right after the Asian earthquake disaster, which further supports our conjectures on the causation between legal origin and CSR, and on the preponderance of civil laws in relation to common law in fostering a corporate stakeholder focus.

Deepwater Horizon Oil Spill and Corporate Environmental Concerns

The *Deepwater Horizon* oil spill, also known as the BP oil disaster, began on 20 April 2010 in Gulf of Mexico on the BP-operated Macondo Prospect. It is considered the largest accidental marine oil spill in the history of the petroleum industry. Following the explosion and sinking of the Deepwater Horizon oil rig, a sea-floor oil gusher flowed for 87 days, with several failed efforts to contain the flow. The spill had a severe environmental impact. The US Government estimated the total discharge at 4.9 million barrels (210 million US gal; 780,000 m^3), which directly polluted 68,000 square miles (180,000 km^2) of ocean and had a 'devastating' effect on marine life in the Gulf and led to the gulf ecosystem being "in crisis". Between May and June 2010, the spill waters contained 40 times more Polycyclic aromatic hydrocarbons (PAH)'s—which often include carcinogens and chemicals that pose various health risks to humans and marine life—than before the spill.

The Deepwater Horizon oil spill was an environmental shock to all energy-related industries regarding the environmental consequences of their production and operations. We therefore compare, across legal regimes, corporations' upgrading of their environmental concerns after the oil spill, measured by the change of the overall environmental score as the dependent variable. Panel C of Table 10 shows the results in a similar way in in Panels A and B, except that the DiD estimator is the

coefficient of "Civil law × 2010". This coefficient is still positive and statistically significant, indicating that energy-related firms in civil law countries on average upgraded their environmental performance by more than 7 grades in relation to those in common law countries. This result once again supports our conjecture that legal origin matters, and that civil law provides more fertile grounds for CSR.

[Insert Table 10 about Here]

VI. Shareholder Value Implication of CSR

Finally, we consider the implications of CSR on shareholder value, which has not yet been explored within a cross-country setting in the extant "doing well by doing good" literature. To do so, we first investigate the direct effect of CSR on shareholder value. Second, we investigate the moderating effect of CSR on the negative association between agency problems and shareholder value.

For the direct effect of CSR on shareholder value, the typical endogeneity issue between doing well (shareholder value) and doing good (CSR) emerges: CSR can influence firm value ("doing well by doing good"), but firm value can also reversely influence CSR adoption ("doing good by doing well"). Therefore, we apply an instrumental variable approach to address this issue by using instruments for firm-level CSR and conduct a two-stage least square estimation. The IV that we use is the political orientation of the government—left, right, or center—the data that is assembled from the Database of Political Institutions (DPI) and varies over time. An important note is that because both our endogenous variables and IV are time-variant, we are able to control for firm fixed effects in both stages, which largely rules out other potential channels.

We show the second stage results of the 2SLS regressions in Table 11. The dependent variable in the second stage is the winsorized (at 5%) Tobin's Q, defined as either the market-to-book ratio of equity or the market-to-book ratio of assets. The CSR indices—predicted by political orientation of the country's government in the first stage—are the overall *IVA Rating*, *RiskMetrics EcoValue Rating*, *RiskMetrics Social Rating*, as well as two sub-indices that are believed to be much influenced by the

political orientation: *Labor Relations*, and *Environmental Opportunities* from the MSCI IVA sample. We document that the coefficients of various CSR measures (predicted from the first stage) are consistently positive and significant in the second stage, even after controlling for firm-fixed effects, which indicates that CSR does contribute to the creation of shareholder wealth. It also implies that finance and social responsibility are not necessarily in conflict as in Friedman's (1970) view. In fact, maximizing stakeholder value can be consistent with maximizing the value of shareholders who belong to the broader group of stakeholders.

[Insert Table 11 about Here]

To test the moderating effect of CSR on agency costs, we utilize the rich coverage of corporate governance provisions around the world in the ASSET4 ESG sample, and construct a global entrenchment index (E-index) as a proxy for agency problems. Our global E-index is constructed following the structure of the original E-index for the US as in Bebchuk et al. (2009). We incorporate the following provisions: (1) a poison pill; (2) a golden parachute; (3) a classified board, (4) other anti-takeover devices, and (5) supermajority requirements for amending charters or bylaws.[20] We conduct our test on a panel dataset of more than 4,700 of the largest public firms from 60 countries in the ASSET4 sample from 2002 to 2013. The dependent variable for all specifications is Tobin's Q, defined as the market-to-book ratio of assets, winsorized at the 5% level. The key explanatory variables are the global E-index, the CSR rating (ASSET4's overall CSR score, environmental score, and social score, respectively), and the interaction between the E-index and CSR (Entrenchment Index × CSR), together with the control variables specified above for Table 11. As shown in Table 12, the Entrenchment Index is significantly and negatively correlated with Q. The interaction terms between CSR and Entrenchment are mostly positively and significantly correlated with Q. In addition, the main effects of CSR are mostly positive. We interpret these results—especially the positive coefficients on the interaction terms between CSR and Entrenchment—as supporting our previous findings in Table 11 in that CSR not only directly

[20] As a further robustness check of our "global E-index", we create Entrenchment Index 2 by replacing "classified board" in Entrenchment Index 1 by "staggered board".

leads to higher firm value, but also moderates the negative effects of agency problems.

[Insert Table 12 about Here]

One may be concerned that managerial entrenchment is mainly relevant for firms/countries without major controlling shareholders, as the original test was developed in a US context and hence mostly applies for Anglo-American countries with dissipated ownership structures. In unreported regressions, we also measure the "wedge" between voting rights and cash flow rights of the largest shareholder as another proxy of potential agency problem for firms with controlling shareholders. In these unreported tests, our previous results on legal origins remain, and that the wedge variable is mostly not significantly correlated with CSR.

VII. Conclusion

In the economic literature, the nature of the truly fundamental, and largely exogenous, determinants of various economic outcomes is still unresolved. La Porta *et al.* (2008: 326) claim that "…. legal origins—broadly interpreted as highly persistent systems of social control of economic life—have significant consequences for the legal and regulatory framework of the society, as well as for economic outcomes." In this paper, we focus on an important economic outcome, namely corporate social responsibility and societal sustainability that constitute a 'good society' in the words of Shiller (2012). We have set out to examine, from the perspective of sustainable development, the foundations of CSR and its implication for firm value. We assess CSR using proxies for corporate stakeholder concerns, such as environmental, social, and governance policies which measure both engagement and compliance. In particular, by means of large-scale public and proprietary databases of CSR engagement and compliance to ESG issues, we find that legal origins are the main predictors of CSR adoption and performance around the world, whereas political institutions such as democratic participation and constraints on government, culture, firm-level corporate governance, and financial performance are not. Country-level regressions confirm our firm-level results: legal origins are the most fundamental sources of sustainability, while political institutions, cultures and norms are not consistent pre-conditions.

Our results yield a strikingly different picture of legal origins than that described by LLSV and numerous other law and finance studies. Whereas LLSV show that the English common law origin is superior in terms of judicial efficiency, protection against state expropriation, accounting standards, financial development, and more active IPO and acquisition markets, we find that the English legal origin fosters CSR performance significantly less than countries under civil law origins. Our results are consistent with those of LLSV in that English legal origin comprises a shareholder-orientation whereas civil law is more stakeholder-oriented which stimulates CSR. We find that companies under the Scandinavian legal origin assume most CSR. Companies under the German legal origin outperform in terms of the adoption of environmental policies, while companies under the French legal origin focus on social and labor-related issues. Our results hold for both CSR engagement and CSR compliance, which further suggests that CSR is not merely a corporate strategic action (engagement) to boost financial performance, nor is it simply compliance to the rules. Rather, either compliance or engagement is fundamentally driven by systematic differences in legal regimes across countries. Moreover, civil law countries obtain higher country-level environmental, social, and governance sustainability ratings than common law countries.

None of our empirical results and arguments are to deny the importance of finance and shareholder value to a society. As pointed out by Shiller (2012), a well-functioning system of financial capitalism with strong corporate governance can indeed contribute to a good (or a better) society, which is confirmed by our empirical results on the positive relation between shareholder protection, CSR, and Tobin's Q. Our key argument here is that protecting the rights of *other* stakeholders, besides those of shareholders, are also important for achieving a sustainable society. In addition, firm value also incorporates stakeholder value, in addition to pure shareholder value, which is confirmed by our empirical findings on the positive effect of CSR on Tobin's Q. As argued by Gennaioli, Shleifer, and Vishny (2014), finance is crucial in guiding efficient resource allocation and the preservation of wealth. Therefore, protecting stakeholder rights is not necessarily contradictory to protecting shareholder rights.

Overall, this study has implications useful for policymakers aiming at stimulating socially responsible and sustainable development.

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Table 1. Intangible Value Assessment (IVA) Data Description

IVA Factor	IVA Subscore	weight	Key Metrics
Strategic governance	SG1) Strategy	<2%	Overall governance; rating composed of total scores of non-Key Issues
	SG2) Strategic Capability / Adaptability	<2%	Management of CSR issues, partnership in multi-stakeholder initiatives
	SG3) Traditional Governance Concerns	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
Human capital	HC1) Workplace Practices	<2%	Workforce diversity, policies and programs to promote diversity, work/life benefits, discrimination-related controversies
	HC2) Labor Relations	20%	*KEY ISSUE: Labor Relations* Benefits, strikes, union relations, controversies, risk of work stoppages, etc.
	HC3) Health & Safety	<2%	H&S policies and systems, implementation and monitoring of those systems, performance (injury rate, etc.), safety-related incidents and controversies
Stakeholder capital	SC1) Stakeholder Partnerships	<2%	Customer initiatives, customer-related controversies, firm's support for public policies with noteworthy benefits for stakeholders
	SC2) Local Communities	<2%	Policies, systems and initiatives involving local communities (esp. indigenous peoples), controversies related to firm's interactions with communities
	SC3) Supply Chain	<2%	Policies and systems to protect supply-chain workers' and contractors' rights, initiatives toward improving labor conditions, supply-chain-related controversies
Products and services	PS1) Intellectual Capital/ Product Development	<2%	Beneficial products and services, including efforts that benefit the disadvantaged, reduce consumption of energy and resources, and production of hazardous chemicals; average of two scores
	PS2) Product Safety	<2%	Product quality, health and safety initiatives, controversies related to the quality or safety of a firm's products, including legal cases, recalls, criticism
Emerging markets	EM1) EM Strategy	<2%	Default = 5, unless there is company specific exposure that is highly significant
	EM2) Human Rights/ Child and Forced Labor	<2%	Policies, support for values in Universal Declaration of Human Rights, initiatives to promote human rights, human rights controversies
	EM3) Oppressive regimes	<2%	Controversies, substantive involvement in countries with poor HR records
Environmental risk factors	ER1) Historic Liabilities	<2%	Controversies including natural resource-related cases, widespread or egregious environmental impacts
	ER2) Operating Risk	<2%	Emissions to air, discharges to water, emission of toxic chemicals, nuclear energy, controversies involving non-GHG emissions
	ER3) Leading/ Sustainability Risk Indicators	<2%	Water management and use, use of recycled materials, sourcing, sustainable resource management, climate change policy and transparency, climate change initiatives, absolute and normalized emissions output, controversies
	ER4) Industry Carbon Specific Risk	25%	*KEY ISSUE: Carbon* Targets, emissions intensity relative to peers, estimated cost of compliance
Environmental management capacity	EMC1) Environmental Strategy	<2%	Policies to integrate environmental considerations into all operations, environmental management systems, regulatory compliance, controversies
	EMC2) Corporate Governance	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
	EMC3) Environmental Management Systems	<2%	Establishment and monitoring of environmental performance targets, presence of environmental training, stakeholder engagement
	EMC4) Audit	<2%	External independent audits of environmental performance
	EMC5) Environmental Accounting/Reporting	<2%	Reporting frequency, reporting quality
	EMC6) Environmental Training & Development	<2%	Presence of environmental training and communications programs for employees
	EMC7) Certification	<2%	Certifications by ISO or other industry- and country-specific third party auditors
	EMC8) Products/ Materials	<2%	Positive and negative impact of products & services, end-of-life product management, controversies related to environmental impact of P&S.
Environmental opportunity factors	EO1) Strategic Competence	<2%	Policies to integrate environmental considerations into all operations and reduce environmental impact of operations, products & services, environmental management systems, regulatory compliance
	EO2) Environmental Opportunity	35%	*KEY ISSUE: Opportunities in clean technology* Product development in clean technology, R&D relative to sales and trend, innovation capacity
	EO3) Performance	<2%	Percent of revenue represented by identified beneficial products & services

Table 2. Average CSR Score across Different Legal Origins.

The Overall IVA Rating is the weighted average score for different subcategories onwards. EcoValue 21 Rating and Social Rating are from RiskMetrics. A higher score signifies that the company put more effort in the issue, and is marked by a darker color. Standard deviations are in brackets.

	English origin	French origin	Socialist origin	German origin	Scandinavian origin
General Ratings					
Overall IVA Rating	2.72 (1.74)	3.10 (1.73)	1.26 (1.21)	2.83 (1.72)	3.93 (1.74)
EcoValue 21 Rating	2.65 (1.77)	2.92 (1.78)	1.20 (1.21)	3.59 (1.85)	3.88 (1.70)
Social Rating	2.75 (1.73)	2.99 (1.75)	1.40 (1.36)	2.84 (1.63)	3.85 (1.66)
Strategic Governance	5.42 (1.85)	5.58 (1.85)	3.89 (1.57)	5.49 (1.82)	6.66 (1.73)
Strategic Governance Strategy	5.47 (2.23)	5.91 (2.23)	4.01 (2.09)	6.01 (2.05)	6.76 (2.02)
Strategic Capability Adaptability	5.28 (2.30)	5.63 (2.15)	3.83 (2.17)	5.76 (2.16)	6.38 (2.17)
Traditional Governance Concerns	5.57 (1.97)	5.31 (2.00)	4.56 (2.21)	4.93 (2.07)	6.60 (1.84)
Human Capital	5.56 (1.69)	5.88 (1.74)	4.06 (1.67)	5.44 (1.73)	6.39 (1.72)
Employee Motivation Development	5.93 (2.00)	6.30 (2.01)	4.85 (2.12)	5.71 (1.92)	6.61 (2.10)
Labor Relations	5.26 (1.85)	5.62 (2.03)	4.25 (2.25)	5.51 (1.76)	6.13 (2.01)
Health Safety	5.45 (2.14)	5.51 (2.01)	3.75 (1.97)	5.27 (2.09)	6.07 (2.11)
Stakeholder Capital	5.33 (1.87)	5.44 (1.86)	3.97 (1.25)	5.23 (1.78)	5.78 (1.91)
Customer Stakeholder Partnerships	5.21 (2.14)	5.46 (2.14)	4.01 (2.03)	5.42 (2.00)	6.09 (2.10)
Local Communities	5.86 (2.21)	5.63 (2.10)	4.84 (1.88)	5.51 (2.01)	5.28 (1.96)
Supply Chain	5.12 (2.31)	5.09 (2.20)	3.65 (2.32)	5.21 (2.15)	5.75 (2.38)
Products and Services					
Intellectual Capital Product Develop.	5.42 (2.34)	5.78 (2.25)	3.98 (1.96)	6.18 (2.29)	6.34 (1.95)
Product Safety	5.17 (2.02)	5.37 (2.25)	3.84 (2.34)	5.39 (2.11)	5.88 (2.07)
Emerging Market					
Emerging Market Strategy	5.37 (1.90)	5.61 (1.87)	4.54 (1.85)	5.27 (1.80)	5.85 (1.97)
Human Rights Child and Forced Labor	5.10 (2.12)	5.16 (2.05)	4.60 (2.08)	5.11 (1.94)	5.98 (2.13)
Oppressive Regimes	5.11 (2.13)	5.00 (1.98)	4.78 (2.08)	4.97 (1.97)	5.34 (2.05)
Environment (Overall)	4.66 (1.64)	4.87 (1.76)	3.06 (1.29)	5.49 (1.70)	5.70 (1.56)
Environmental Risk Factors	5.13 (1.92)	5.09 (1.75)	3.57 (1.38)	5.47 (1.57)	6.03 (1.40)
Historic Liabilities	5.22 (2.59)	4.92 (2.35)	3.21 (1.64)	5.25 (2.14)	6.02 (2.03)
Operating Risk	4.96 (2.40)	4.52 (2.46)	3.01 (2.08)	5.14 (2.22)	5.59 (2.48)
Leading Sustainability Risk Indicator	4.80 (2.02)	5.01 (1.99)	3.41 (1.65)	5.63 (1.94)	5.83 (1.90)
Industry Specific Carbon Risk	4.35 (2.59)	4.39 (2.75)	3.66 (2.35)	4.84 (2.54)	5.33 (2.38)
Environmental Mgmt. Capacity	4.07 (2.19)	4.55 (2.13)	3.21 (1.76)	5.46 (2.13)	5.59 (2.17)
Environmental Strategy	4.93 (2.41)	5.34 (2.38)	4.06 (2.13)	6.15 (2.28)	6.54 (2.24)
Corporate Governance	4.00 (2.45)	4.06 (2.30)	3.38 (2.18)	5.09 (2.31)	4.90 (2.31)
Environmental Management Systems	3.93 (2.57)	4.68 (2.66)	2.98 (2.20)	5.83 (2.64)	5.77 (2.62)
Audit	4.03 (2.77)	4.26 (2.79)	3.36 (2.66)	5.35 (2.84)	5.20 (2.94)
Environmental Accounting/ Reporting	3.54 (2.54)	4.26 (2.47)	2.72 (2.18)	5.57 (2.90)	5.39 (2.71)
Environmental Training Development	4.18 (2.77)	4.71 (2.64)	3.52 (2.62)	5.67 (2.60)	5.69 (2.84)
Certification	2.75 (2.54)	3.07 (2.52)	2.13 (2.11)	3.46 (2.55)	3.57 (2.85)
Products Materials	3.51 (2.53)	4.11 (2.43)	2.28 (1.81)	4.94 (2.68)	5.36 (2.61)
Environmental Opportunity Factors	5.14 (1.89)	5.17 (2.09)	4.17 (1.62)	5.59 (1.90)	6.09 (1.83)
Strategic Competence	4.38 (2.54)	4.92 (2.48)	3.52 (1.93)	6.06 (2.43)	5.98 (2.51)
Environmental Opportunity	4.47 (2.25)	4.93 (2.21)	3.49 (1.83)	5.75 (2.21)	5.87 (2.08)
Performance	4.20 (2.71)	4.63 (2.64)	3.30 (2.15)	5.57 (2.68)	5.65 (2.45)

Table 3. Non-parametric Tests on the Means of CSR indices by Legal Origins.

(Wilcoxon-Mann-Whitney Test Statistics)

The Wilcoxon-Mann-Whitney signed-rank test compares two subsamples of different legal origins to assess whether their population firm-time mean ranks differ. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors (not reported) are clustered at the country level.

	Overall IVA Rating	EcoValue 21 Rating	Social Rating	Labor Relations	Industry Specific Carbon Risk	Environmental Opportunity
Civil vs. common legal origin	18.676***	58.391***	19.059***	23.905***	22.369***	34.366***
French vs. English origin	16.044***	15.241***	12.046***	16.333***	1.855*	4.907***
German vs. English origin	3.994***	58.977***	5.906***	13.480***	22.050***	33.680***
Scandinavian vs. English origin	29.299***	40.474***	32.592***	24.327***	24.112***	33.527***
French vs. German origin	11.026***	-30.546***	6.623***	5.194***	-13.318***	-18.235***
French vs. Scandinavian origin	-18.879***	-28.764***	-23.121***	-12.277***	-19.137***	-25.728***
German vs. Scandinavian origin	-26.137***	-8.600***	-29.329***	-17.580***	-11.923***	-16.326***
Capitalist vs. Socialist origin	16.994***	27.184***	22.259***	12.920***	10.496***	19.474***

Table 4. Random-Effect GLS and Pooled OLS Models

The dependent variables are the ordinal (ranging from 0 to 6) CSR ratings from MSCI, including the overall intangible value assessment (IVA) rating, the RiskMetrics EcoValue rating (environmental rating), and the RiskMetrics Social rating. Models (1)-(6) use random-effect GLS (RE GLS) estimations, and models (7)-(9) are estimated using pooled OLS and without controlling for time fixed effects. "Financial controls" include ROA, interest coverage, financial constraints (investment-cash flow sensitivity), and financial slacks (current ratio), and are controlled for in all regressions. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RE GLS	RE GLS	RE GLS	RE GLS	RE GLS	RE GLS	Pooled OLS	Pooled OLS	Pooled OLS
DV = CSR ratings	*IVA rating*	*EcoValue rating*	*Social rating*	*IVA rating*	*EcoValue rating*	*Social rating*	*IVA rating*	*EcoValue rating*	*Social rating*
French origin	0.399	1.076**	0.486	2.134***	2.291***	2.084***	1.815**	2.272**	1.254*
	(0.320)	(0.474)	(0.321)	(0.578)	(0.544)	(0.610)	(0.775)	(0.927)	(0.652)
German origin	0.774***	1.205**	0.506*	4.154***	3.854***	3.895***	2.403***	2.086**	1.647**
	(0.249)	(0.458)	(0.276)	(0.552)	(0.666)	(0.595)	(0.819)	(0.778)	(0.658)
Scandinavian origin	0.874***	1.714***	0.915***	3.453***	2.735***	3.244***	1.639***	1.112*	1.327***
	(0.150)	(0.355)	(0.142)	(0.502)	(0.638)	(0.412)	(0.483)	(0.545)	(0.313)
Citizenry preference	0.0060	-0.0008	0.0050	0.0537***	0.0519**	0.0519***	0.0769	0.0650	0.0486
	(0.0133)	(0.0226)	(0.0138)	(0.0121)	(0.0200)	(0.0108)	(0.0484)	(0.0453)	(0.0410)
Regulatory quality	-0.469	0.125	-0.434	0.144	1.186*	0.414	2.174**	2.231*	1.515*
	(0.445)	(0.494)	(0.421)	(0.449)	(0.608)	(0.669)	(0.860)	(1.146)	(0.847)
Democratic participation				-0.167***	-0.101***	-0.133***	0.0192	0.0668*	0.0338
				(0.0296)	(0.0254)	(0.0339)	(0.0356)	(0.0323)	(0.0269)
Executive constraints				-0.378	0.158	-0.560	0.319	1.429	0.210
				(0.552)	(0.412)	(0.502)	(1.279)	(1.268)	(1.088)
Ln(GDP per capita)	0.183	0.120	0.308	-1.093***	-0.17	-0.842*	-1.116**	-0.170	-0.873**
	(0.227)	(0.295)	(0.208)	(0.311)	(0.278)	(0.416)	(0.384)	(0.492)	(0.363)
Globalization index	0.0554***	-0.0130	0.0361***	0.198***	0.0523	0.136***	0.0220	-0.107***	0.009
	(0.0132)	(0.0139)	(0.0104)	(0.0351)	(0.0331)	(0.0353)	(0.0273)	(0.0323)	(0.0195)
Ownership dispersion	0.0396	0.0105	0.0366	-0.0169	-0.150	0.0182	0.0593	-0.169	0.0992
	(0.0244)	(0.0217)	(0.0236)	(0.131)	(0.127)	(0.118)	(0.219)	(0.197)	(0.218)
Supervisory board	0.539**	0.227	0.700***	0.316	-0.315	0.102	0.773	0.0703	0.450
	(0.205)	(0.278)	(0.178)	(0.203)	(0.241)	(0.307)	(0.937)	(0.774)	(0.803)
UO – state				-0.507	0.220	-0.741*	0.514	0.841	0.192
				(0.524)	(0.738)	(0.406)	(0.978)	(0.873)	(0.857)
UO – families				-0.567	0.467	-0.246	0.499	0.648	0.316
				(0.349)	(0.362)	(0.307)	(0.942)	(0.611)	(0.813)
UO – foundation				2.161***	2.261***	2.038***	0.370	-0.870	0.492
				(0.448)	(0.438)	(0.437)	(1.145)	(1.040)	(0.818)
UO – financial				-0.656	1.173***	-0.561	0.336	-0.336	0.213
				(0.406)	(0.191)	(0.353)	(0.989)	(0.624)	(0.796)
UO – pension				-1.306*	-0.0286	-0.891	0.327	-0.703	0.0501
				(0.728)	(0.841)	(0.763)	(0.864)	(0.657)	(0.711)
UO – VC/PE				-1.798***	-1.206*	-1.628**	-4.907***	-5.005***	-4.243***
				(0.561)	(0.635)	(0.696)	(1.163)	(1.346)	(0.999)
Financial controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
N	19058	36350	23894	2216	3619	2726	1725	2741	2089

Table 5. Random-Effects Ordered Probit Models

The dependent variables are the ordinal (ranging from 0 to 6) CSR ratings from MSCI, including the overall intangible value assessment (IVA) rating, the RiskMetrics EcoValue rating (environmental rating), and the RiskMetrics Social rating. Models (1)-(9) are estimated using random-effect ordered probit models. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are reported in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DV= CSR ratings	*IVA*	*Eco Value*	*Social*	*IVA*	*Eco Value*	*Social*	*IVA*	*Eco Value*	*Social*
French origin	1.403***	-0.048*	0.181***	0.729***	1.881***	0.448***	1.750***	0.374***	0.352***
	(0.030)	(0.027)	(0.024)	(0.053)	(0.032)	(0.036)	(0.157)	(0.059)	(0.061)
German origin	2.377***	0.929***	0.040	1.756***	1.647***	0.0502	2.304***	1.335***	0.428***
	(0.033)	(0.027)	(0.026)	(0.039)	(0.029)	(0.032)	(0.082)	(0.050)	(0.070)
Scandinavian origin	2.557***	1.204***	2.128***	3.082***	1.084***	0.701***	3.769***	1.658***	0.773***
	(0.044)	(0.031)	(0.051)	(0.069)	(0.034)	(0.035)	(0.222)	(0.036)	(0.044)
Corruption control				-0.108**					
				(0.049)					
Executive constraints					-0.059***	-0.224***	-1.045***	0.188**	-0.022
					(0.020)	(0.019)	(0.073)	(0.074)	(0.084)
Citizenry preference							0.001***	-0.007***	0.024***
							(0.002)	(0.003)	(0.003)
Regulatory quality				0.371***	0.498***	-0.370***	0.199**	0.345***	-0.554***
				(0.093)	(0.037)	(0.061)	(0.083)	(0.055)	(0.076)
Ln(GDP per capita)				0.604***	0.752***	0.944***	2.168***	-0.187***	0.610***
				(0.046)	(0.027)	(0.047)	(0.093)	(0.036)	(0.050)
Board tier structure				-0.142***	-0.098***	0.034***	-0.484***	0.027***	0.005
				(0.029)	(0.004)	(0.004)	(0.096)	(0.004)	(0.005)
Ownership dispersion				-0.002	0.615***	1.399***	0.0183**	-0.383***	1.666***
				(0.005)	(0.030)	(0.037)	(0.009)	(0.03)	(0.055)
ROA				-1.201***	-0.682***	-0.741***	-1.298***	-1.046***	-0.349*
				(0.190)	(0.111)	(0.190)	(0.204)	(0.148)	(0.185)
Interest coverage				-0.0004	0.0039*	0.0015	-0.0003	0.0097***	0.0043
				(0.0004)	(0.0021)	(0.0024)	(0.0004)	(0.0030)	(0.0031)
Financial constraints				0.0056*	0.0008***	-0.0000	0.0055	0.0012***	-0.0007**
				(0.0031)	(0.0003)	(0.0003)	(0.0034)	(0.0003)	(0.0003)
Financial slack				-0.019**	-0.038***	-0.024**	-0.030***	-0.052***	-0.020***
				(0.008)	(0.006)	(0.010)	(0.008)	(0.007)	(0.008)
N	47775	90496	61119	26855	51211	33596	23311	36775	24152
Log likelihood	-56053.969	-119273.51	-80403.812	-30524.54	-65480.907	-42368.574	-26270.477	-46230.904	-29573.759

Table 6. Testing Effects of Legal Origins on Other CSR Data (Random-Effects GLS)

The dependent variables are the different ESG Ratings from MSCI Impact Monitor, Vigeo ESG Ratings, and the Asset4 database, respectively. The independent variables are the same as in Table 5 except that citizenry preference is not included. The democratic participation index used in all columns is from the Vanhanen index. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	MSCI Impact Monitor		Vigeo ESG						Asset 4 ESG					
DV = CSR ratings	*Overall Score*		*Corporate Governance*		*Human Resources Rating*		*Consumer & Supplier Rating*		*Environmental Rating*		*Social Rating*		*Overall CSR Rating*	
	(1)		(3)		(4)		(5)		(6)		(7)		(8)	
Laws														
French origin	1.616*	(0.792)	-16.51***	(2.333)	11.628*	(6.501)	7.360**	(3.282)	17.87*	(10.11)	17.27*	(10.26)	10.20	(9.512)
German origin	1.861***	(0.386)	-21.57***	(2.270)	7.786***	(2.454)	0.273	(2.276)	15.57***	(4.920)	1.218	(5.921)	-11.00**	(5.053)
Scandinavian origin	1.517***	(0.517)	-17.05***	(4.372)	8.929***	(3.126)	6.892***	(2.406)	31.85***	(9.735)	26.39***	(10.07)	25.44***	(8.640)
Political institutions														
Democratic participation	0.029	(0.033)	0.096	(0.169)	-0.007	(0.115)	-0.299**	(0.132)	0.277	(0.648)	-0.084	(0.646)	-0.245	(0.558)
Executive constraints	-0.256	(0.194)	1.176	(2.323)	-1.241	(4.035)	2.719	(2.621)	-3.263	(5.091)	-1.580	(4.874)	0.003	(4.377)
Regulatory quality	2.706**	(1.179)	4.608	(5.504)	7.559	(6.971)	10.291***	(2.948)	23.61***	(7.540)	21.26**	(8.615)	25.79	(7.955)
Corruption control									-19.49***	(2.762)	-23.24***	(3.287)	-25.60***	(3.117)
Economic development														
Ln(GDP per capita)	-2.643***	(0.829)	-2.475	(4.621)	-16.42***	(2.727)	-12.066***	(2.818)	9.860*	(5.207)	9.537*	(5.535)	14.08**	(5.598)
Globalization index	-0.080	(0.048)	0.850***	(0.190)	0.497***	(0.210)	-0.032	(0.112)	-0.536	(0.643)	0.061	(0.664)	-0.072	(0.573)
Ownership and governance														
Ownership dispersion	-0.063	(0.040)	0.463***	(0.114)	0.097	(0.148)	0.025	(0.129)	0.310	(0.290)	0.179	(0.354)	0.622*	(0.330)
Supervisory board	-0.317	(0.777)	4.393*	(2.530)	0.953	(2.506)	3.043	(1.945)	8.787	(5.542)	16.57**	(6.549)	18.29***	(6.291)
Controls														
ROA	-3.483*	(1.818)	0.156**	(0.077)	-0.134**	(0.066)	-0.067	(0.059)	3.894	(3.732)	3.845	(6.265)	27.31***	(6.173)
Interest coverage	0.014***	(0.003)	-0.042***	(0.007)	-0.013	(0.020)	-0.014	(0.018)	-0.036***	(0.009)	-0.026**	(0.011)	-0.011	(0.013)
Financial constraints	-0.010	(0.020)	0.001	(0.003)	-0.014***	(0.001)	-0.012***	(0.001)	-0.004***	(0.001)	0.001	(0.001)	-0.007***	(0.001)
Financial slack	-0.180	(0.174)	0.746	(0.903)	-1.641***	(0.620)	-0.857	(0.979)	-0.410	(0.636)	-0.441	(0.658)	-0.985	(0.613)
Constant	36.75***	(8.012)	-9.544	(55.07)	156.5****	(36.67)	142.18***	(30.10)	-8.911	(48.05)	-41.69	(52.21)	-89.19*	(51.27)
No. of observations	751		4283		4283		4283		13583		13583		13583	
R- square adj.	12.7%		44.1%		27.5%		5.1%		6.3%		4.1%		3.9%	

Table 7. Investor Protection, Cultures, and Corporate Social Responsibility (Random-Effects GLS)

The dependent variables are the ordinal (ranging from 0 to 6) overall IVA rating, RiskMetrics EcoValue rating (environmental rating), and RiskMetrics social rating, respectively. The independent variables are legal origins (omitting the English legal origin as the base case), anti-director rights index (ADRI), the Vanhanen democratic participation index, political executive constraints, regulatory quality, ownership dispersion, tier structure or a supervisory board dummy, the ultimate owner (UO] dummies, and financial controls (ROA, financial constraints, interest coverage, financial slack). The democratic participation index used in all columns is from the Vanhanen index. The five cultural dimensions are from Hofstede and Hofstede (2005) and measured at the country-level. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

DV = CSR ratings	*IVA Rating*				*EcoValue21 Rating*				*Social Rating*			
	(1)		(2)		(3)		(4)		(5)		(6)	
Law												
French origin	1.207***	(0.314)	1.036	(0.684)	0.922**	(0.443)	1.677***	(0.563)	0.829***	(0.218)	0.601	(0.591)
German origin	1.185***	(0.290)	2.050***	(0.388)	0.662*	(0.347)	1.101*	(0.565)	1.118***	(0.259)	2.210***	(0.301)
Scandinavian origin	1.337***	(0.346)	1.849***	(0.478)	1.661***	(0.463)	1.193*	(0.640)	1.181***	(0.253)	1.928***	(0.476)
Adjusted ADRI	0.343***	(0.063)	0.699***	(0.090)	0.294***	(0.064)	0.737***	(0.159)	0.369***	(0.070)	0.605***	(0.082)
Political institutions												
Democratic participation	-0.013	(0.010)	-0.038**	(0.018)	-0.013	(0.014)	-0.049**	(0.020)	-0.009	(0.011)	-0.031*	(0.017)
Exec. Constraints	0.309**	(0.131)	-0.524*	(0.292)	0.064	(0.136)	0.283	(0.435)	0.111	(0.231)	-0.672**	(0.257)
Regulatory quality	0.097	(0.319)	-0.775*	(0.446)	0.639*	(0.355)	-0.221	(0.411)	-0.469	(0.405)	-0.894**	(0.353)
Cultural dimensions												
Power distance	0.008	(0.011)	-0.015	(0.016)	0.005	(0.008)	-0.036	(0.024)	-0.001	(0.014)	-0.013	(0.014)
Individualism	0.004	(0.002)	0.047***	(0.008)	-0.0004	(0.005)	0.014*	(0.008)	0.008	(0.008)	0.041***	(0.006)
Masculinity/Femininity	0.001	(0.006)	-0.021**	(0.008)	0.011*	(0.007)	-0.007	(0.008)	0.0003	(0.004)	-0.020**	(0.009)
Uncertainty avoidance	-0.009	(0.006)	0.014	(0.011)	0.002	(0.008)	-0.009	(0.013)	-0.009	(0.006)	0.018*	(0.010)
Pragmatism	-0.026***	(0.006)	-0.037***	(0.010)	-0.011***	(0.004)	-0.000	(0.014)	-0.026***	(0.005)	-0.041***	(0.008)
Ownership and governance												
Ownership dispersion	0.051**	(0.025)	0.129	(0.165)	0.027	(0.021)	-0.008	(0.144)	0.056**	(0.022)	0.147	(0.151)
Supervisory board	0.379*	(0.202)	1.421***	(0.240)	0.410	(0.204)	0.763***	(0.270)	0.225	(0.182)	0.676***	(0.202)
UO – state			-0.180	(0.510)			0.444	(0.642)			-0.223	(0.413)
UO – families			-1.108***	(0.370)			-0.551*	(0.321)			-0.987**	(0.357)
UO – foundation			0.208	(0.393)			0.992***	(0.351)			0.183	(0.282)
UO – financial			0.786**	(0.347)			1.084***	(0.320)			0.600*	(0.305)
UO – pension			-1.806***	(0.498)			-1.862***	(0.434)			-1.731***	(0.418)
UO – VC/PE			-1.180	(1.064)			0.036	(0.709)			-0.969	(1.161)
Controls												
ROA	-0.351	(0.317)	-1.534	(2.202)	-0.599**	(0.289)	-0.527	(2.106)	-0.488	(0.387)	0.047	(2.305)
Interest coverage	0.001	(0.001)	0.004	(0.004)	0.001	(0.001)	-0.004	(0.004)	0.001	(0.001)	0.001	(0.003)
Fin. Constraints	0.004**	(0.002)	0.016	(0.096)	-0.0004	(0.004)	0.005	(0.091)	0.004	(0.004)	-0.082	(0.128)
Financial slack	-0.012	(0.017)	-0.041	(0.086)	-0.042**	(0.020)	0.090	(0.078)	-0.029	(0.018)	0.013	(0.063)
Constant	0.174	(1.120)	4.823	(2.727)	-0.457	(1.106)	-0.140	(3.382)	2.106	(1.785)	5.746**	(2.407)
Year FE	Yes		Yes		Yes		Yes		Yes		Yes	
Industry FE	No		Yes		No		Yes		No		Yes	
R-squared adj.	9.8%		69.5%		9.4%		62.5%		8.5%		63.7%	
No. observations	26042		2336		50717		3898		33202		2939	

Table 8. The Determinants of Country-Level Sustainability

The table shows OLS regressions for the cross-section of countries. The dependent variables are the 2013 country-level overall sustainability rating, environmental sustainability rating, social sustainability and solidarity rating, and the institutional sustainability rating from Vigeo. The independent variables in Panel A are legal origins (omitting the English legal origin as the base case), anti-director rights index (ADRI), the Vanhanen democratic participation index (average across 1960-2000), political executive constraints index (average across 1996-2008), regulatory quality index (average across 1960-2012), the logarithm of GDP per capita, and the globalization index. The independent variables in Panel B are similar to those in Panel A except that the Vanhanen index is replaced by the Polity IV democracy index (average across 1960-2008), and the political executive constraints index is replaced by the corruption control index (average across 1996-2008). *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A.

DV = country sustainability	*Overall sustainability rating*		*Environmental sustainability rating*		*Social sustainability and solidarity rating*		*Institutional sustainability rating*	
	(1)		(3)		(4)		(5)	
Legal origins								
French origin	5.412***	(1.700)	-0.235	(2.458)	6.124*	(3.111)	12.053***	(3.190)
German origin	8.157***	(2.746)	8.073***	(2.915)	5.610	(4.021)	10.205*	(5.594)
Scandinavian origin	11.661***	(2.337)	9.335**	(3.568)	13.076***	(3.035)	11.601***	(3.301)
Adjusted ADRI	0.852	(0.798)	0.119	(1.048)	0.397	(1.457)	2.645*	(1.357)
Political institutions								
Democratic participation (1960-2000)	0.100	(0.104)	-0.135	(0.128)	0.251	(0.186)	0.264	(0.216)
Regulatory quality (1996-2012)	2.487	(2.343)	0.191	(3.988)	5.043	(3.523)	3.385	(3.955)
Exec. constraints (1960-2008)	0.245	(0.423)	0.581	(0.536)	-0.008	(0.771)	0.208	(0.706)
Economic development								
Ln(GDP per capita) (1960-2011)	1.715	(2.058)	-0.074	(2.214)	5.357**	(2.150)	1.748	(3.388)
Globalization index (1970-2010)	0.064	(0.064)	-0.029	(0.147)	-0.053	(0.212)	0.160	(0.287)
Observations	41		41		41		41	
Adj. R-square	80.7%		35.4%		85.7%		75.5%	

Panel B.

DV = country sustainability	*Overall sustainability rating*		*Environmental sustainability*		*Social sustainability and solidarity*		*Institutional sustainability*	
Legal origins								
French origin	5.325***	(1.956)	-1.986	(1.874)	6.817**	(3.308)	13.213***	(3.711)
German origin	8.208***	(2.563)	10.684***	(3.577)	4.318	(3.610)	8.513	(5.225)
Scandinavian origin	13.224***	(2.895)	11.928**	(4.684)	14.673***	(3.088)	12.295***	(4.056)
Adjusted ADRI	0.878	(0.914)	0.557	(0.920)	0.629	(1.616)	1.761	(1.713)
Political institutions								
Polity IV democracy (1960-2008)	0.824	(1.507)	0.137	(1.232)	0.205	(1.920)	3.139	(2.174)
Corruption control (1996-2008)	-3.109	(3.447)	-10.255**	(3.900)	-0.970	(4.755)	2.847	(5.889)
Regulatory quality (1996-2012)	5.356	(3.724)	9.718*	(5.275)	5.379	(5.818)	1.504	(5.793)
Executive constraints (1960-2008)	-0.572	(1.578)	0.182	(1.538)	0.181	(2.456)	-3.107	(2.343)
Economic development								
Ln(GDP per capita)	1.682	(1.789)	0.625	(2.067)	6.016**	(2.262)	-0.426	(3.804)
Globalization index	0.127	(0.131)	0.048	(0.129)	0.039	(0.224)	0.189	(0.291)
Observations	41		41		41		41	
Adj. R-square	81.1%		44.9%		84.6%		77.0%	

Table 9. Quasi-Natural Experiments: Multiple Listing across Legal Regimes

The dependent variables are the overall CSR rating, the environmental rating, and the social rating from the ASSET4 corporate ESG database. Each row reports the result from one model. The differences-indifferences (DiD) estimator in all models is the coefficient on "Cross-listing × year", where cross-listing is a dummy variable indicating the firm had cross-listing history and year is a dummy variable indicating which year the firm was dual-listed across legal regimes. All regressions control for country, year, and industry fixed effects. Panel A reports results of cross-listing from common law countries to French civil law countries, and Panel B reports results of cross-listing from French civil law countries to common law countries. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A. The Effect of Cross-Listing from Common Law to French Civil Law on Firm CSR Ratings											
DV = CSR ratings		Cross listing×year	Cross listing	Tobin's Q	CF rights	CF rights sq.	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
(1)	*Overall CSR*	4.058***	10.36***	0.456***	-0.238**	0.0015	13.04***	7.882***	3.324***	1.730	1.273**
		(0.981)	(2.237)	(0.118)	(0.105)	(0.0011)	(4.993)	(0.522)	(0.569)	(2.122)	(0.554)
				Country, Year, Industry fixed effects:			Yes	R-squared:	43.5%	Obs:	10295
(2)	*Environmental*	4.538***	14.68***	0.449***	-0.164	0.0014	1.744**	8.026***	2.483***	-2.266	-0.173
		(1.144)	(4.881)	(0.110)	(0.0999)	(0.0010)	(0.827)	(0.406)	(0.450)	(3.995)	(0.345)
				Country, Year, Industry fixed effects:			Yes	R-squared:	47.3%	Obs:	10430
(3)	*Social*	2.796***	11.86***	0.526***	-0.179**	0.0016	1.525**	7.630***	2.475***	4.715*	0.839*
		(0.777)	(3.445)	(0.101)	(0.0827)	(0.0010)	(0.676)	(0.337)	(0.522)	(2.488)	(0.508)
				Country, Year, Industry fixed effects:			Yes	R-squared:	42.8%	Obs:	10430
(4)	*Overall CSR (t+1)*	0.200	9.853***	0.321***	-0.232*	0.0014	4.103**	7.510***	2.926***	1.591	0.931***
		(0.566)	(1.963)	(0.0970)	(0.129)	(0.0014)	(1.767)	(0.405)	(0.465)	(2.205)	(0.326)
				Country, Year, Industry fixed effects:			Yes	R-squared:	41.7%	Obs:	9027
(5)	*Environmental (t+1)*	2.300***	13.00***	0.217	-0.170*	0.0013	1.586	8.147***	2.307***	-2.926	-0.272
		(0.715)	(4.299)	(0.140)	(0.102)	(0.0012)	(1.015)	(0.482)	(0.358)	(4.414)	(0.287)
				Country, Year, Industry fixed effects:			Yes	R-squared:	47.0%	Obs:	9332
(6)	*Social (t+1)*	2.382***	10.48***	0.468***	-0.182	0.00170	3.344**	7.286***	2.510***	3.711*	0.812*
		(0.800)	(2.792)	(0.101)	(0.136)	(0.0017)	(1.543)	(0.425)	(0.578)	(2.047)	(0.428)
				Country, Year, Industry fixed effects:			Yes	R-squared:	42.5%	Obs:	9332
Panel B. The Effect of Cross-Listing from French Civil Law to Common Law on Firm CSR Ratings											
(7)	*Overall CSR*	3.545	-0.483	0.466***	-0.241**	0.0015	13.083***	8.012***	3.326***	1.700	1.274**
		(4.322)	(9.870)	(0.116)	(0.104)	(0.0011)	(4.993)	(0.510)	(0.572)	(2.134)	(0.556)
				Country, Year, Industry fixed effects:			Yes	R-squared:	43.5%	Obs.	10295
(8)	*Environmental*	5.296	4.096	0.458***	-0.168*	0.0014	1.784**	8.173***	2.469***	-2.308	-0.171
		(7.316)	(11.315)	(0.107)	(0.098)	(0.0010)	(0.824)	(0.431)	(0.447)	(3.975)	(0.347)
				Country, Year, Industry fixed effects:			Yes	R-squared:	47.3%	Obs:	10430
(9)	*Social*	-2.390	3.226	0.532***	-0.182**	0.0016*	1.568**	7.744***	2.455***	4.716*	0.840*
		(4.945)	(9.522)	(0.097)	(0.081)	(0.0010)	(0.662)	(0.341)	(0.522)	(2.491)	(0.509)
				Country, Year, Industry fixed effects:			Yes	R-squared:	42.8%	Obs:	10430

Table 10. Quasi-Natural Experiments: Scandals and Disasters

The dependent variables are the product responsibility rating from ASSET4 in Panel A, the amount of corporate donations from Datastream in Panel B, and the overall environmental rating (environmental score) from ASSET4 in Panel C. Each row reports the result from one model. The differences-indifferences (DiD) estimator is the coefficient on "Civil law × 2009" in Panel A, the coefficient on "Civil law × 2005" in Panel B, and the coefficient on "Civil law × 2010" in Panel C. The control variables are the same as in Table 9. All regressions control for country, year, and industry fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A. The Effect of the China Milk Scandal on Customer & Product Responsibility in Food-Related Industries Across Legal Origins

DV = CSR	Civil law × 2009	Civil law	Tobin's Q	CF rights	CF rights²	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Product Responsibility	7.654*	31.39***	0.756	-0.097	0.0014	-3.572	1.653	1.854	-2.906	-0.134
	(4.580)	(11.82)	(0.597)	(0.200)	(0.0023)	(6.854)	(1.221)	(1.687)	(8.219)	(1.044
			Country, Year, Industry fixed effects:			Yes	R-squared:	15.9%	Obs:	1087

Panel B. The Effect of Asian Earthquake and Tsunami on Corporate Donations in All Industries Across Legal Origins

	Civil law × 2005	Civil law	Tobin's Q	CF rights	CF rights²	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Corporate Donations	4.976*	23.92	0.361**	-0.089	0.001	-4.468**	6.415***	2.285***	4.993*	-0.426
	(2.875)	(24.39)	(0.162)	(0.0709)	(0.001)	(1.862)	(0.387)	(0.577)	(2.705)	(0.315)
			Country, Year, Industry fixed effects:			Yes	R-squared:	24.6%	Obs:	10353

Panel C. The Effect of Deepwater Horizon Oil Spill on Corporate Environmental Performance in Energy-Related Industries Across Legal Origins

	Civil law × 2010	Civil law	Tobin's Q	CF rights	CF rights²	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Environmental Score	7.041**	15.56	0.517	-0.303*	0.0033*	-0.801	9.226***	1.950	-4.195	1.667*
	(3.124)	(16.46)	(0.432)	(0.157)	(0.002)	(3.123)	(0.806)	(1.420)	(7.711)	(0.868)
			Country, Year, Industry fixed effects:			Yes	R-squared:	62.8%	Obs:	1340

Table 11. CSR and Shareholder Value: Two Stage Least Squares Regressions

This table reports the 2nd stage results from the instrumental variable (IV) approach with 2SLS estimations. The IV for CSR in the 1st stage is the country-level political orientation (left, center, right) of the government. The dependent variable is Tobin's Q measured by the winsorized (at 5% level) market-to-book ratio of equity in models (1)-(5), and the winsorized (at 5% level) market-to-book ratio of assets in models (6)-(10). The subtitle under each model indicates which CSR measure is used as the independent variable in the 2nd stage (predicted from the 1st stage): the overall IVA rating, the EcoValue rating (environmental rating), the social rating, the labor relations rating, and the environmental opportunity rating, all from the MSCI IVA sample. All regressions control for firm fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

	DV = MTB equity, winsorized at 5%					*DV = MTB assets, winsorized at 5%*				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
CSR measures:	*IVA rating*	*EcoValue rating*	*Social rating*	*Labor relations*	*Environ. opportunity*	*IVA rating*	*EcoValue rating*	*Social rating*	*Labor relations*	*Environ. opportunity*
CSR (predicted from 1st stage)	0.181***	0.291***	0.283***	0.395***	0.403***	-0.0089	0.0358**	0.0262*	0.0407**	0.0416*
	(0.0416)	(0.0407)	(0.0404)	(0.0608)	(0.0630)	(0.0143)	(0.0148)	(0.0137)	(0.0194)	(0.0214)
Largest shareholder ownership	0.0006*	0.0008**	-0.0000	-0.0000	0.0013***	0.0000	-0.0002**	-0.0003**	-0.0003**	-0.0002*
	(0.0004)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Sales growth rate	0.008***	0.008***	0.010***	0.009***	0.010***	0.001***	0.002***	0.002***	0.002***	0.002***
	(0.0008)	(0.0006)	(0.0007)	(0.0007)	(0.0009)	(0.0003)	(0.0002)	(0.0002)	(0.0002)	(0.0003)
Dividend payout ratio	-0.0167**	0.0003	0.0033***	0.0037***	-0.0001	-0.0063***	-0.0006***	0.0007***	0.0007***	-0.0006***
	(0.0069)	(0.0006)	(0.0007)	(0.0008)	(0.0007)	(0.0023)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Leverage, winsorized	0.321***	0.298***	0.292***	0.281***	0.304***	0.0261***	0.0230***	0.0278***	0.0290***	0.0244***
	(0.0056)	(0.0045)	(0.0049)	(0.0054)	(0.0051)	(0.0019)	(0.0016)	(0.0017)	(0.0017)	(0.0017)
Ln(assets)	-0.055***	-0.156***	-0.076***	-0.090***	-0.129***	-0.025***	-0.055***	-0.036***	-0.038***	-0.052***
	(0.0049)	(0.0076)	(0.0046)	(0.0046)	(0.0053)	(0.0017)	(0.0028)	(0.0015)	(0.0015)	(0.0018)
ROA	16.57***	11.59***	15.07***	14.45***	11.57***	8.623***	5.946***	7.559***	7.541***	5.930***
	(0.227)	(0.160)	(0.199)	(0.243)	(0.171)	(0.0775)	(0.0575)	(0.0674)	(0.0773)	(0.0575)
Financial constraints	-0.022***	-0.042***	-0.032***	-0.027***	-0.038***	-0.004*	-0.017***	-0.012***	-0.011***	-0.016***
	(0.0070)	(0.0035)	(0.0064)	(0.0060)	(0.0039)	(0.0024)	(0.0013)	(0.0022)	(0.0019)	(0.0013)
Current ratio	-0.039***	0.036***	0.005	-0.074***	0.031***	0.010**	0.047***	0.031***	0.024***	0.046***
	(0.013)	(0.012)	(0.013)	(0.012)	(0.012)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
CapEx/Sales	0.386***	0.335***	0.385***	0.308***	0.537***	0.209***	0.215***	0.207***	0.199***	0.240***
	(0.086)	(0.090)	(0.089)	(0.094)	(0.108)	(0.029)	(0.032)	(0.030)	(0.030)	(0.036)
Constant	1.151***	1.946***	1.110***	0.105	0.441	1.408***	1.686***	1.449***	1.328***	1.551***
	(0.177)	(0.100)	(0.166)	(0.328)	(0.336)	(0.061)	(0.036)	(0.056)	(0.105)	(0.114)
N	14727	25803	18388	18424	25244	14744	25849	18429	18465	25289
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.4208	0.3037	0.3751	0.3222	0.2156	0.5493	0.3792	0.5052	0.5052	0.3790

Table 12. CSR, Entrenchment, and Shareholder Value

The dependent variable is Tobin's Q (market-to-book ratio of assets) winsorized at 5% level for all regressions. Entrenchment Index 1 is the sum of the following dummy variables from Datastream: the presence of (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions, treating non-available values as zeros. Entrenchment Index 2 has the similar composition as Entrenchment Index 1 (and hence also treats non-available values as zeros), except that "classified board" (directors' terms can be different) is replaced by "staggered board" (directors' terms are uniform). CSR is measured by ASSET4's overall CSR rating for columns (1)—(2), ASSET4's aggregate environmental rating for columns (3)—(4), and ASSET4's aggregate social rating for columns (5)—(6). Other financial controls are the same as in Table 11, which include: (winsorized) sales growth rate, (winsorized) dividend payout ratio, (winsorized) leverage, the logarithm of total assets, ROA, financial constraints, current ratio, (winsorized) and CapEx/sales, etc. All specifications include country fixed effects, industry fixed effects, and year fixed effects. Standard errors are clustered at the firm level and reported in parentheses. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively.

	Overall CSR rating		*Environmental rating*		*Social rating*	
DV = Tobin's Q, winsorized at 5%	(1)	(2)	(3)	(4)	(5)	(6)
CSR	0.0011**	0.0010**	-0.0001	-0.0001	0.0005	0.0002
	(0.0004)	(0.0005)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Entrenchment Index 1	-0.0314**		-0.0304**		-0.0385***	
	(0.0141)		(0.0126)		(0.0135)	
Entrenchment Index 2		-0.0325***		-0.0298***		-0.0440***
		(0.0126)		(0.0115)		(0.0121)
CSR × Entrenchment Index	0.0005**	0.0004**	0.0005***	0.0004***	0.0006***	0.0007***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Largest shareholder ownership	0.0009	0.0009	0.0007	0.0007	0.0007	0.0007
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Other financial controls	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	14877	14877	15044	15044	15044	15044
R-squared	0.3817	0.3818	0.3776	0.3776	0.3811	0.3811

Appendix. Definitions of Independent Variables

Variable	Definition
	I. Law
Legal origins	The legal origin of the company law or commercial code of each country in which the focal firm is headquartered. We distinguish five major legal origins: English common law, French commercial code (civil law), German commercial code (civil law), Scandinavian civil law, and Socialist law. Source: LLSV (1998).
Anti-director rights index (ADRI)	The anti-director rights index (ADRI) was first developed in LLSV (1998) as a measure of investor protection against corporate management, and later on revised in La Porta *et al.* (2008) and Spamann (2010). All the three ADRIs consist of the same six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; (6) percentage of share capital to call an extraordinary shareholder meeting. Each component is a dummy variable and the ADRI is formed by aggregating the value of all six components. The index ranges from 0 to 6, whereby a higher value of the index indicates stronger shareholder protection. Source: LLSV (1998); La Porta *et al.* (2008); Spamann (2010).
	II. Political Institutions
Vanhanen's index of democratic participation	Tutu Vanhanen's index of democracy is computed by multiplying the political competition and political participation variables (also defined and calculated by WDR2011) and by dividing the outcome by 100. Higher value of the index implies higher level of democracy. The Vanhanen's measure on political competition is used to denote the electoral success of the smaller parties (i.e., the proportion of the votes won by those parties in parliamentary and/or presidential elections) to indicate the degree of competition in a political system. This index is calculated by subtracting the percentage of the votes won by the largest party from 100 percent. The Vanhanen's measure on political participation is the percentage of the population that actually voted in these elections (electoral participation). The total population is used as denominator and not the adult or enfranchised population). A combination of the two variables is expected to yield a more realistic indicator of democratization than either as a stand-alone measure. The Index value is taken for 2000, the initial year of data available for most companies in our sample. Source: PRIO/CSCW – World Bank.
Polity IV democratic participation	Institutionalized Democracy: Democracy is conceived as three essential, interdependent elements: (i) the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders; (ii) the existence of institutionalized constraints on the exercise of power by the executive; (iii) the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, freedom of the press, and so on are means to, or specific manifestations of, these general principles. The Democracy indicator is an additive eleven-point scale (0-10). Higher value of the index implies higher level of democracy. Source: Polity IV.
Political executive constraints	Political Executive Constraints (Decision Rules): (1) Unlimited Authority: There are no regular limitations on the political executive's actions (as distinct from irregular limitations such as the threat or actuality of coups and assassinations); (2) Intermediate Category; (3) Slight to Moderate Limitation on Political Executive Authority: There are some real but limited restraints on the executive; (4) Intermediate Category; (5) Substantial Limitations on Political Executive Authority: The executive has more effective authority than any group to which is it is accountable but the executive is subject to substantial constraints that group imposes in it; (6) Intermediate Category; (7) Executive Parity or Subordination: Accountability groups have effective authority equal to or greater than the executive in most areas of activity. Source: Polity IV.
Corruption control	The extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as the "capture" of the state by elites and private interests. Coded from -2.5 to 2.5 with higher values corresponding with better governance outcomes. Source: World Governance Indicator – World Bank.
Regulatory quality	The ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Coded from -2.5 to 2.5 with higher values corresponding with better governance outcomes. Higher value of the index implies a higher level of regulatory quality. Source: World Governance Indicator – World Bank.
Political orientation of executive party	The political orientation data measures the chief executive party's orientation with respect to economic policy, coded based on the description of the party in the sources, using the following criteria: "Right" (coded as 1) is for parties that are defined as conservative, Christian democratic, or right-wing. "Center" (coded as 2) is for parties that are defined as centrist or when party position can best be described as centrist (e.g. party advocates strengthening private enterprise in a social-liberal context). Not described as centrist if competing factions "average out" to a centrist position (e.g. a party of "right-wing Muslims and Beijing-oriented Marxists"). "Left" (coded as 3) is for parties that are defined as communist, socialist, social democratic, or left-wing. "0" is for all those cases which do not fit into the above-mentioned category (i.e. party's platform does not focus on economic issues, or there are competing wings), or no information. "NA" is for those cases in which there is no executive.
	III. Economic Development
GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Source: World Bank.

Globalization index	The KOF Index of Globalization measures the three main dimensions of globalization: (1) economic, (2) social, and (3) political. In addition to three indices measuring these dimensions, an overall index of globalization and sub-indices are also calculated referring to (1) actual economic flows, (2) economic restrictions, (3) data on information flows, (4) data on personal contact, and (5) data on cultural proximity. Data are available on a yearly basis over the period 1970-2010. A higher score indicates higher degree of globalization. Source: Swiss Federal Institute of Technology Zurich (ETH).
	IV. Cultures
Citizenry preference	The fraction of surveyees in each country who answered "A great deal" or "Quite a lot" (relative to "Not very much" and "None at all") to the following question: How much confidence do you have in major companies (to take social responsibility). Source: World Value Survey (assembled by the Association of Religion Data Archives: www.TheARDA.com)
Power distance	"Power distance" deals with the fact that all individuals are not equal and is defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. The concept captures whether or not a society's inequality is endorsed by the followers as much as by the leaders. A higher score signifies a large power distance between individuals. Source: Hofstede and Hofstede (2005).
Individualism	Individualism is the degree of interdependence a society maintains among its members and defines people's self-image in terms of "I" or "We". In individualist societies, people are supposed to look only after themselves and their direct family whereas in collectivist societies people belong to 'in groups' that take care of them in exchange for loyalty. A higher score indicates more individualism in society. Source: Ibid.
Masculinity/ Femininity	A high score on the Masculinity/Femininity dimension indicates that a masculine society is driven by competition, achievement and success, with success being defined by the "winner" or "best-in-the-field." A low score means that the dominant values in the feminine society consist of caring for others and quality of life. A feminine society is one where quality of life is the sign of success and standing out from the crowd is not admirable. Source: Ibid.
Uncertainty avoidance	Uncertainty avoidance represents how a society deals with the fact that the future is uncertain: should one try to control the future or just let it happen? The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these is reflected in the UAI score. A higher score implies a higher level of uncertainty avoidance. Source: Ibid.
Pragmatism	Pragmatism describes *how every society has to maintain some links with its own past while dealing with the challenges of the present and future*. Normative societies who score low on this dimension, for example, prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future. Source: Ibid.
	V. Ownership and Governance
Ownership dispersion	Bureau van Dijk's Independence indicator shows different categories ranging from A to D. Category A (divided into A+, A, and A-) represents the group of "independent companies" and consists of companies without any shareholders holding more than 25% of the direct or total ownership. Category B (divided into B+, B, and B-) consists of companies without shareholders holding more than 50% of direct, indirect or total ownership, but with one or more shareholders holding more than 25% of direct or total ownership. Category C (divided into C+ and C) represents the group of "indirectly majority owned companies" and consists of companies without shareholder holding more than 50% of direct ownership, but with one shareholder holding more than 50% of total ownership. Category D represents the group of "directly majority owned companies" and consists of companies with one shareholder holding more than 50% of direct ownership. The ratings translated into these numbers: A+ = 9, A= 8, A-= 7, B+= 6, B= 5, B-= 4, C+= 3, C= 2, D= 1. Source: Orbis.
Ultimate owner (UO)	UO stands for the percentage of direct voting rights owned by this shareholder who is identified by following the path of uninterrupted control rights (at 50%) throughout the ownership pyramid. UO – state: the ultimate owner of the subject company is the state, the government or a public authority; UO – families: the ultimate owner is one or more named individuals or families; UO – foundation: the ultimate owner is a foundation or research institute; UO – financial: the ultimate owner is a bank or financial company, or an insurance company; UO – pension: the ultimate owner is a mutual fund or pension fund, or a nominee/trust/trustee from the pension fund; UO – VC/PE: the ultimate owner is a venture capital or private equity firm; UO – industrial the ultimate owner is an industrial conglomerate (corporations). Source: Orbis.
Supervisory board	Dummy variable which equals one if the subject company has a supervisory board, and zero otherwise. Source: Orbis.
Largest owner cash flow rights	The percentage ownership of the single biggest owner (by voting power) of the company. Source: ASSET4 (Datastream).
Entrenchment index	Following the original Entrenchment Index with US coverage by Bebchuk, Cohen, & Ferrell (2009), the Entrenchment Index 1 is constructed for firms from 64 countries across the world during the period 2002-2013, and is the sum of the five dummy variables from Datastream's ASSET4 sample based on the presence of: (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a staggered board (the terms of board members are uniform), and (5) other anti-takeover provisions. Entrenchment Index 2 has the similar composition as Entrenchment Index 1, except that "classified board" (directors' terms can be different) is replaced by "staggered board" (directors' terms are uniform). Missing values are treated as zeros. Source: ASSET4 (Datastream).
	VI. Financial Performance and Constraints
ROA	Return on assets: net income divided by total assets. Source: Compustat.

Fin. Constraints	Measured by the ratio of the change in short-term investment to the change in operational cash flow. Source: Compustat.
Interest coverage	Earnings before interests and taxes (EBIT) divided by interest expenses. Source: Compustat.
Financial slack	Current ratio, calculated as the current debts divided by current assets. Source: Compustat.
Sales growth rate	One-year annual growth rate of sales revenue of the firm. Source: Datastream.
Dividend payout ratio	Rolling 12 month dividend per share (adjusted). It is intended to represent the anticipated payment over the following 12 months and for that reason may be calculated on a rolling 12-month basis, or as the "indicated" annual amount, or it may be a forecast. Special or once-off dividends are generally excluded. Dividends per share are displayed gross, inclusive of local tax credits where applicable, except for France, Belgium, Ireland and the UK, where dividends per share are displayed net. Source: Datastream.
CapEx/sales	The ratio of capital expenditure to annual sales revenue. Source: Datastream.
Tobin's Q	Source: Datastream.